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Study of Alternatives  
Western Pennsylvania Region:  
Its Landscape, People, and Industry

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# Study of Alternatives

August 1994

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## **Western Pennsylvania Region: Its Landscape, People, and Industry**

## APPROVAL FOR PUBLICATION AND TRANSMITTAL

This study was prepared by the Denver Service Center, National Park Service, at the request of the Southwestern Pennsylvania Heritage Preservation Commission and in consultation with the Western Pennsylvania Heritage Coordination Group. The study has been recommended for publication by the Partnerships Branch and the Eastern Team of the Denver Service Center. The Western Pennsylvania Heritage Coordination Group has concurred in that recommendation and approved the document for publication and transmittal.

### RECOMMENDED

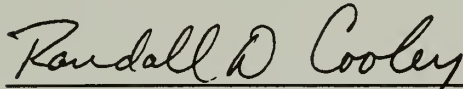
Frederick C.K. Babb  
Chief, Western Pennsylvania Partnerships, Denver Service Center

March 18, 1994

Michael Donnelly  
Acting Manager, Eastern Team, Denver Service Center

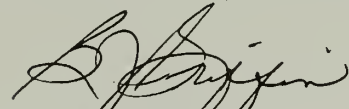
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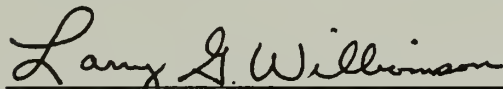
Randall D. Cooley, Executive Director  
Southwestern Pennsylvania Heritage Preservation Commission

July 26, 1994



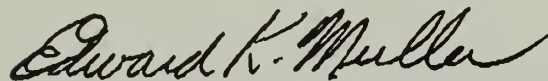
B.J. Griffin, Regional Director, Mid-Atlantic Region, National Park Service

July 28, 1994



Larry G. Williamson, Manager, Pennsylvania Heritage Parks Program  
Pennsylvania Department of Community Affairs

July 22, 1994



Edward K. Muller, Chairman, Steel Industry Heritage Corporation

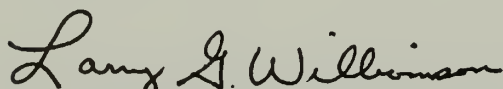
August 1, 1994



Brenda Barrett, Director, Bureau for Historic Preservation  
Pennsylvania Historical and Museum Commission

June 28, 1994

### APPROVED



Larry G. Williamson  
Chairman, Western Pennsylvania Heritage Coordination Group

July 22, 1994



## SIGNIFICANCE STATEMENT

In 1901 Andrew Carnegie delivered a handwritten note to J.P. Morgan asking for over \$400 million for the Carnegie Steel Corporation. Morgan's curt reply, "I accept this price," set in motion the creation of the U.S. Steel Corporation. Pittsburgh, Pennsylvania, and the former Carnegie works formed the core of the largest corporate venture in history, an industrial giant whose value was greater than that of the national debt. The evolution of steel both defined and symbolized the story of American industrialization in the late 19th and early 20th centuries. Pittsburgh and the rest of western Pennsylvania, more than any other region of the United States at that time, defined the evolution of iron and steel.

However, the industrial colossus that was western Pennsylvania did not spring into being overnight. The same factors that enabled the region to dominate iron and steel production and helped make the United States the greatest economic power on earth had earlier placed western Pennsylvania in a series of events that played pivotal roles in our nation's history. The region's abundant natural resources, transportation routes, geographic location, and diverse cultures combined to write western Pennsylvania's dynamic and dramatic history and will continue to shape the region's development into the future.

In addition to its period of industrial power and leadership, western Pennsylvania was home to other significant events in American History. Events as diverse as the French and Indian War (1754-1763) and the Whiskey Rebellion (1794) played critical roles in the nation's history. These events set the stage for future industrial development and success.

As the nation stretched its boundaries, western Pennsylvania played a significant role in fostering western expansion. The Pennsylvania Main Line Canal facilitated the connection of east coast markets with Pittsburgh and the interior lands beyond the Ohio River. The National Road, with its

towns and taverns established along the way, gave settlers easier access to the region and encouraged entrepreneurs to establish businesses in the area. Some of the earliest rural endeavors included blast furnaces, the pig iron products of which were shipped to rolling mills and foundries located near urban areas. The development of Pennsylvania's bituminous coalfields helped supply the nation's burgeoning energy needs and eventually led to building an industrial empire along the banks of the Monongahela River, out of which emerged the giant U. S. Steel Corporation.

The region's iron and steel and coal and coke industries, supported by an extensive transportation system, combined to create an industrial region unrivaled at the turn of the century. Western Pennsylvania became the nation's industrial furnace as iron and steel, glass, aluminum, and other materials that were essential to America's industrialization poured from its furnaces.

The nation's railroads, which were built with the steel rails produced in western Pennsylvania's steel mills, stretched across the western plains and on toward the Pacific coast. By the 1870s the Cambria Iron Works in Johnstown was an acknowledged leader in rail production. The city of Pittsburgh, with its massive steel mills lining the banks of the Monongahela River, became known as the "steel city." Beginning in the late 1880s, Pittsburgh's iron and steel also made possible the massive iron/steel skeletal structures that came to define the modern city.

Of fundamental importance to the industrial development of the region was the development of its coal industry. The high-grade bituminous coal of the Pittsburgh coal seam was ideally suited to the production of coke, which fueled the rapid development of the region's iron and steel industry. The Connellsville coke region in Fayette and Westmoreland counties was the single most important region in the country for the production of metallurgical coke. At its peak in 1910, dominated by

beehive oven technology, the Connellsville coke region had almost 40,000 ovens turning coal into coke for the area's blast furnaces.

As industrial growth quickly outstripped local labor supplies, thousands of immigrants from eastern and southern Europe, along with African-Americans from the southern United States, moved to the region, worked in the steel mills and coalfields, and lived in the coal patches and mill towns. Many had little prior industrial work experience and spoke only the language of their native lands. These men, women, and children created an ethnic and racial diversity that is still reflected in the region today. Despite their diverse backgrounds and goals, they often joined together to improve working and living conditions. Western Pennsylvania's industrial workers made major contributions to America's labor movement, including two major unions, the United Steelworkers of America and the United Mine Workers of America.

The interaction between people and resources has been key to western Pennsylvania's growth and national importance — the people have capitalized on opportunities that succeeded in marking the region as a national leader. However, the economic prosperity of rapid industrial development was not without cost. The late 1970s and early 1980s witnessed the devastating worker layoffs and numerous steel mill closures as well as the shutdown of many coal mine operations. The historic depletion and degradation of the region's natural resources remain a legacy of the region today. Past experience, however, serves the region well as western Pennsylvania has become a leader in the field of environmental reclamation and cleanup. Between 1950 and 1970 air quality

regulations and water and flood control improvements have helped present a new image of the western Pennsylvania region to the nation. The quality of life now experienced by residents of the region reflects the progress made in environmental stewardship during the last 50 years and the region's determination to continue to be in the forefront of national growth and change.

At the turn of the 20th century western Pennsylvania led the way in transforming the United States into the greatest economic power the world had ever known.

Today, there is a shift to a post-industrial future with automated and downscaled production, electronic technology, and service-oriented businesses. Western Pennsylvania offers the opportunity to see and understand the origins and the workings of the region that contributed to American economic power and industrial strength.

The evolution of western Pennsylvania illustrates a peculiarly American transformation. Over the centuries a sense of common destiny has emerged from a past marred by violence and bloodshed and conquest. Land once prized, then exploited and degraded, is gradually regaining some of its former integrity. And the region's people continue to adapt to changing times, as their predecessors have so many times in the past. A new economic base will replace the old industrial infrastructure, which in its time supplanted commerce, and in turn once succeeded the fur trade, subsistence farming, and distilling. The varied experiences of life in the Alleghenies all reflect an overarching continuity — a rich and complex history shaped by the region's geography, resources, and people.

## SUMMARY

In November 1992, the Southwestern Pennsylvania Heritage Preservation Commission, acting under the authority of Public Law 100-698, requested that the National Park Service, Partnerships Branch, undertake four studies of the iron and steel, coal and coke, glass, and aluminum industries in the western Pennsylvania region. The studies were to evaluate the resource bases related to these four industries and develop viable alternatives for their conservation, use, and interpretation. Close coordination with state and local partners, both public and private, was considered vital to the successful completion of these planning efforts.

The study team determined that the diverse stories of the political, social, and economic development of western Pennsylvania would guide the methodology of data collection for the resource inventory. The region's industrial heritage cannot be understood completely without some appreciation of the other significant chapters in its history. The stories of the brutal warfare of the colonial era, the explosive American expansion in the early 19th century, the technological advances in transportation, as well as the rise of American industry of the late 19th and early 20th centuries, reinforce the fact that the region's role as a vital crossroads and rich resource base remained remarkably consistent over time. The stories of these events, combined with many of the region's resources, would give visitors a clearer understanding of how the evolution of one region can alter the history of an entire nation.

A wide range of cultural resources reflect the historical patterns of the region. These include battlefields, reconstructed forts, and significant landforms from the French and Indian War era; houses, inns, taverns, villages, and communities built during the American expansion to the West; toll houses, roadways, railroads, tunnels, and canal remnants that furthered a revolution in transportation; iron furnaces, coke ovens, and steel plants that represent the evolution

of American industry; coal company towns, industrial cities, and millionaires' homes that illustrate the diversity of the region's community life; and the broken dams, poisoned rivers, coal mines, and spectacular engineering achievements. The resources testify both to the ways in which the people of western Pennsylvania have altered the land and to the consequences of those alterations.

Many of the region's resources, particularly those related to industrialization, already have been lost. Economic redevelopment and continued deterioration pose imminent threats to many more. These threats create a pressing need for the development of criteria upon which to evaluate the significance and integrity of these nontraditional resources.

Three alternatives proposed for resource conservation and interpretation provide the most flexible approach for allowing visitors to experience the region's heritage. All the alternatives involve a hub and spoke strategy to enhance the visitor experience. The hub resources would offer comprehensive interpretation of a particular story element, whereas the spoke resources would provide experiences related to specific aspects of the story element. This method best illustrates the complex interrelationships of the region's resources and the way they combine to create a complete historical picture.

Alternative 1 addresses the broadest perspective of the region's history. Numerous nations and cultures have prized Western Pennsylvania as a rich resource base and a gateway into the North American interior. The competition to control this region has spanned centuries and created a historical record of regional and national significance. The resources and stories in this alternative illustrate the remarkable continuity of human perception of the region's values. It is the consistency of this perception over time that binds the region's distinct historical periods. Alternative 1 unites these separate periods



to define the region's distinct and dynamic character.

Alternative 2 would interpret the broad range of regional industrialization, emphasizing labor, capital, and technology. It would examine western Pennsylvania's industries as they developed into two distinct subregions, the Allegheny Ridge and the Monongahela River valley. It would illustrate how this distinctive pattern grew out of a response to available resources, proximity to markets, and the course of human settlement. The alternative also demonstrates how the region's transportation network linked the two subregions to create what was once one of the most industry-intensive regions in the nation.

Alternative 3 would allow visitors to experience the resources and stories associated with the single most significant chapter in the region's history—its role in making the United States the world's preeminent industrial power. This alternative would incorporate resources that illustrate every significant developmental stage of the iron and steel industry in western Pennsylvania. Combined with interpretation of the story of coke, the essential fuel of steel production, the alternative would help visitors gain insights into the evolution of the industry that

defined American industrialization in the late 19th and early 20th centuries.

This comprehensive planning document incorporates elements of other NPS studies, including the *Transportation Special History Study*, the *National Road Special Resource Study*, the *Coal and Coke Resource Analysis*, and the *Concept Plan for the Southwestern Pennsylvania Industrial Heritage Route*. It also drew on the work of the *Concept Plan* and the *Management Action Plan for the Steel Industry Heritage Project*, the *Allegheny Ridge State Heritage Park Plan*, and the *National Road State Heritage Park Plan*.

This study of alternatives provides a common ground on which the numerous partners involved in regional preservation can communicate and coordinate their efforts. The study will demonstrate the full potential of the partnership strategy to conserve, use, and interpret the many resources and stories of a complex regional heritage. These partnerships will have been developed by residents' understanding of and willingness to safeguard the past while building a mature and healthy future.

Federal involvement in management of the study area could range from maintaining current NPS facilities only to setting up partnerships such as heritage areas, to establishing NPS units with full NPS ownership.



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## INTRODUCTION

### PURPOSE OF THE STUDY

The purpose of this study is to identify significant resources and stories that illustrate the history of the western Pennsylvania region and to develop innovative strategies for their conservation, use, and management. The study also raises questions concerning the federal government's appropriate role in the conservation of resources associated with American industrialization in the late 19th and 20th centuries and the region's importance in the development of our nation as a world economic power.

The study is consistent with applicable NPS policies and procedures for special resource studies and evaluates the region's resources and stories relative to specific NPS criteria, including national significance, suitability, and feasibility. However, it is different from typical special resource studies.

One difference is that typically, most NPS studies of alternatives present an evaluation that focuses on a specific resource or geographic location. This study, however, presents a conceptual analysis of stories and resources within a region. In addition, rather than relating to one or a few NPS cultural themes outlined in the *History and Prehistory in the National Park System and the National Historic Landmarks Program* (1987), the resources and stories of this region represent nine different themes within the NPS thematic framework. (Please see the "Suitability and Feasibility" section later in this document for a detailed discussion of cultural themes represented.)

The nature of the region's resources and stories do not fit traditional preservation approaches, i.e., discreet resource site boundaries. Many of the resources are currently at risk or have suffered some loss

of their original physical character. However, the remaining resources still retain an important relationship to events of regional or national significance.

This large region contains numerous interrelated resources that reflect specific chapters in its history. A holistic preservation strategy will afford the opportunity to interpret the region's history in the most comprehensive manner possible.

As part of the evaluation, the importance of the stories and resources associated with industry are highlighted. Long overlooked, evaluation of industrial resources presents challenges, including dealing with a rapidly vanishing resource base, lack of resource integrity, expense of conservation, and widespread negative perceptions of industry. Industrial resources are generally not perceived as being worthy of preservation for historical or aesthetic purposes. However, these resources present exceptional opportunities to examine and use resources in new and nontraditional ways that do not rely solely on integrity. The intangible aspects of industrial resources are critical elements in providing visitors with a sense of place and the significant events that occurred there.

Although all of these factors are important to the study, perhaps the most vital purpose of this study is to tie together the various local, state, and regional efforts to conserve and interpret the region's resources. With a number of relatively independent efforts being undertaken to address the region's resources, there is a need for a unified approach. Consequently, this study provides an integrated evaluation of, and plan for, the region's resources. To this end, several partners that have been involved in regional resource planning have contributed significantly to the study.

## VISION AND GOALS

### Vision

The vision for the study area is to ensure that the resources, related stories, and experiences are safeguarded in such a way that visitors can explore and experience the richness, sense the power, and discover the drama of the place and its people.

An integral part of this vision is a commitment to the conservation of resources associated with America's development, particularly in relation to the contributions of the region's industries.

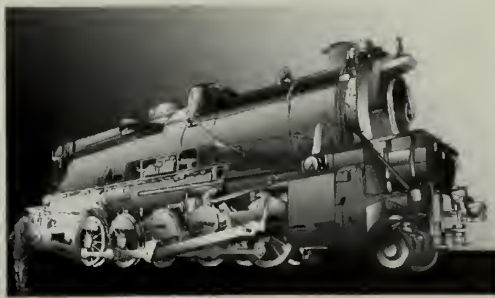
### Goals

In response to this vision, the following goals have been established:

- Build partnerships with identified partners, involving them in conservation, management, and interpretation efforts
- Devise strategies that promote the conservation, management, use, and interpretation of relevant resources; ensure that these strategies reinforce efforts to revitalize the economy and improve the quality of life

## STUDY AREA

The study area covers the western Pennsylvania region, which includes portions of western Pennsylvania and northern West Virginia (see Study Area map). These boundaries were based on the following factors — the study area evaluated in the *Reconnaissance Survey of the Brownsville/Monongahela Valley* (NPS 1991e), distribution and intensity of historical industrial activity, the study area evaluated in the *Coal and Coke Resource Analysis* (NPS 1992b), and technical input obtained from partners during workshops and product review. Although the scope of the study was expanded to include related nonindustrial stories and resources, the boundaries of the study area did not require alteration. However, the study team was unable to conduct the additional research necessary to adequately represent the nonindustrial stories and resources of northern West Virginia. (See the "Recommendations for Future Study" section for further discussion.)



## BACKGROUND

### LEGISLATION

Public Law 100-698, dated November 19, 1988, established the Southwestern Pennsylvania Heritage Preservation Commission (SPHPC) to oversee the activities of America's Industrial Heritage Project (AIHP) in a nine-county area of southwestern Pennsylvania (see appendix A). SPHPC was charged with recognizing, preserving, promoting, interpreting, and making available for the benefit of the public the cultural heritage of the iron and steel, coal, and transportation resources of the area as they relate to the industrial development of the region and the nation.

This legislation required the SPHPC to prepare a report to the secretary of the interior, in consultation with the Pittsburgh Area Steel Heritage Task Force, on the cultural and historic resource values of the greater Allegheny and Washington counties/Monongahela Valley area. These reports — the *Final Concept Plan for the Steel Industry Heritage Project* (described on page 6), prepared by the Steel Industry Heritage Corporation, and the *Reconnaissance Survey of the Brownsville/Monongahela Valley*, which was prepared by the National Park Service (NPS) for the SPHPC in October 1991 — were submitted to the secretary of the interior. The reconnaissance survey assessed a broad land area in western Pennsylvania and northern West Virginia within several historic themes to provide the basis for future cooperative planning. It documented the significance of the area's resources and threats to these resources.

Further evaluation of historical resources within a broad contextual framework was also recommended. The iron and steel, coal and coke, aluminum, and glass industries; labor and ethnic history; transportation; pottery; and secondary metals were

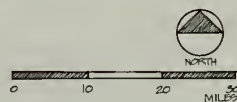
considered important in illustrating the cultural, economic, and industrial development of western Pennsylvania and the nation. The study concluded that further efforts should be undertaken to coordinate information and develop specific strategies for the protection and interpretation of the cultural resources and for recreational opportunities of the region.

### NPS SPECIAL RESOURCE STUDY PROCESS

The National Park Service conducts special resource studies to identify nationally significant natural, cultural, and recreational resources and to assist in their preservation and interpretation inside and outside the national park system. The studies are used to determine if an area's resources meet NPS criteria for inclusion in the national park system. To be eligible for favorable consideration as a unit of the national park system, an area must (1) possess nationally significant natural, cultural, or recreational resources, (2) be a suitable and feasible addition to the system, and (3) require direct NPS management instead of alternative protection by other agencies or the private sector. These criteria are intended to ensure that the national park system includes only outstanding examples of the nation's natural, cultural, and recreational resources. (See appendix K and the "Suitability and Feasibility" section of this study for a discussion of these criteria).

The special resource study planning process involves two steps — preparation of a reconnaissance survey and a study of alternatives. If a reconnaissance survey determines an area is significant and merits further study to determine the best means for protection and management, then a





## STUDY AREA

**WESTERN PENNSYLVANIA REGION:  
STORY OF THE LANDSCAPE, PEOPLE,  
AND INDUSTRY**

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
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study of alternatives is prepared. The *Reconnaissance Survey of the Brownsville/Monongahela Valley*, described above, determined that the western Pennsylvania area was significant and merited further study, which led to this study of alternatives. The study identifies and evaluates alternatives for the conservation, use, and management of resources. It includes an analysis of the NPS special resource study criteria and a resource analysis using NPS special resource study criteria.

Based on the results of the reconnaissance survey and other studies, the SPHPC originally programmed the preparation of separate studies of alternatives for the coal and coke, iron and steel, aluminum, and glass industries. As part of the initial phase of the *Coal And Coke Study Of Alternatives*, the project team prepared a coal and coke resource analysis document to establish the planning framework and fill in gaps necessary to begin a site-specific study of alternatives. Preparation of a separate resource analysis document was not necessary for the iron and steel study, as sufficient information was available from related planning efforts. Both the aluminum and glass studies of alternatives incorporated the elements of a resource analysis in their background planning. However, as the planning process evolved for the four studies, it was found to be impossible to separate the stories of the individual industries and retain the full impact of industrialization on the region and nation. Therefore, these studies were integrated into one comprehensive study to develop alternatives that interpret the interrelationships between industries as well as stories specific to each industry.

## RELATED PLANNING EFFORTS

There are several studies associated with the region that are an integral part of this comprehensive study of alternatives. Some have been completed while others are currently underway. These studies all focus on specific aspects of the region's significant resources, history, themes, and people. To ensure the comprehensiveness of this study,

these significant resources and concepts have become part of the database for this study and subsequently have been incorporated into the three alternatives. A brief description of these studies follows.

Four studies have been prepared by the Partnerships Branch of the Denver Service Center, National Park Service. One is the *Comprehensive Management Plan (CMP)*, which was prepared for the Southwestern Pennsylvania Heritage Preservation Commission. The CMP's purpose is to guide the commission and its partners' activities. The plan identifies significant stories, people, and resources of the nine-county region of SPHPC's project in western Pennsylvania. It outlines how visitors would travel around the region and learn about its stories. It also describes how the resources would be preserved.

A *Transportation Special History Study* was prepared as a distinct project. The purpose of the study is to provide historical documentation to support a comprehensive interpretation of the story of transportation and its impact on the lives of the people in the region. The study details the evolution of transportation in western Pennsylvania from foot trails to interstate highways. Though not proposing site-specific alternatives, it provides historical and interpretive information that relates directly to both industrial and nonindustrial topics addressed in this study of alternatives.

The *National Road Special Resource Study* examines the historic 600-mile-long National Road that runs from Cumberland, Maryland, to Vandalia, Illinois. The landscape and cultural and interpretive resources associated with the historical transportation corridor of the National Road are addressed in this study. The study also presents four alternative concepts for management of the National Road corridor.

The *Concept Plan for Southwestern Pennsylvania's Industrial Heritage Route* provides guidance for the development of the Heritage Route within the nine-county region. The plan identifies historic transportation routes and corridors and representative resources that will provide a

comprehensive understanding of the region's heritage. The plan identifies a corridor incorporating a majority of these routes, corridors, and resources where a specific route will be marked and signed in 1994. The Heritage Route will use existing roads and sites that meet criteria within the concept plan.

*The Final Concept Plan for the Steel Industry Heritage Project*, prepared by the Steel Industry Heritage Corporation, focuses on Pittsburgh and portions of its surrounding six counties. The plan details three alternative concepts and a recommended concept plan. It provides a means of inventorying, preserving, and interpreting the resources of this area and proposes to protect and conserve the important

elements on this area's iron and steel heritage.

The Steel Industry Heritage Corporation is also currently preparing "The Steel Industry Heritage Project Management Action Plan," which is the next step in the Pennsylvania Heritage Parks process for determining a state heritage park. This project is funded by a grant from the Pennsylvania State Heritage Park program. The first step, the concept plan, is described above. When completed the management action plan will create a long-range strategy for establishing and implementing the state heritage park concept in this area. This concept plan will form the foundation for the management action plan.



## HISTORICAL OVERVIEW

In 1800 industry in the United States consisted of little more than cottage-based production. Agricultural production formed the backbone of the American economy. The nation's few cities were small, and 90% of the country's population lived in rural settings. Western Pennsylvania was poised on the frontier between the Atlantic seaboard and the lands along the Ohio River. Pittsburgh was home to only a few thousand people and the rudimentary beginnings of its later industrial infrastructure. Most of the region's people lived on small, isolated farms.

The passage of little more than a century witnessed an astonishing transformation in these conditions. By the beginning of the 20th century, the United States was emerging as the greatest industrial power in history. Its railroads were among the largest corporations in the world, and its rail network totalled 200,000 miles by 1900. In 1914 America produced more steel than Great Britain, Germany, and France combined. The United States was the world's coal producer and a leader in glass and the newly created aluminum industry. By 1920, the once overwhelmingly rural United States had become a nation of urban dwellers.

American industrial capitalism made possible the creation of great cities and transportation systems, the large-scale degradation of the country's natural resources, the rise of an American middle class, and the accumulation of staggering personal fortunes. It also led to the creation of a permanent working class, ruthless exploitation of the labor force, organization of workers unions, occasional open warfare between the forces of labor and capital, widespread environmental devastation, as well as building toward a national culture of industrial production and consumption.

Western Pennsylvania played an essential role in the creation of this new industrial colossus. By the turn of the century, the region's steel furnaces produced almost as much steel as the rest of the country combined. The Pennsylvania Railroad's standards and productive capacity served as one of the models for railroads across America. Western Pennsylvania's bituminous coal mines made the state the national leader in coal production and provided the high-grade coking coal essential to the steel industry. America's aluminum industry began in western Pennsylvania, and the region also was home to many of the country's leading glass producers.

What had once been wilderness to Europeans and Americans became industrial sites. The same land that had been the battleground for empire in the 18th century witnessed bitter battles between workers and capitalists. Pittsburgh grew to become a large city that was also a grotesque scar on the land. Western Pennsylvania paid the price of industrialization in the form of clear-cut forests, dead rivers and streams, lands ravaged by mining, and air that was unfit to breathe.

The same combination of variables that made the region a catalyst in America's industrial expansion had placed it at the center of significant national and international events. Western Pennsylvania's distinctive cultures, resources, and geographic location ensured that it would play a pivotal role in Native American, European, and American history.

Over the centuries people have attempted to control and exploit western Pennsylvania's rich and diverse resource base. Western Pennsylvania played a critical role in the complex politics of the Iroquois



and Algonquin tribes that vied for dominance along the Appalachian Ridges and the Ohio River. The passes and rivers of western Pennsylvania provided vital corridors between the Atlantic coast and the headwaters of the Ohio. Control of this gateway into the continent's interior became a central feature of the Iroquois Confederacy's foreign policy. Their control of the region, however tenuous, made them important players in the exchange of goods and furs between the British in the East and the tribes of the trans-Appalachian west.

By the middle of the 18th century, Great Britain and France began to focus more heavily on the lands near the headwaters of the Ohio River, and the ensuing competition for the lands of western Pennsylvania ultimately triggered a world war that changed the imperial complexion of North America.



Illustration by Daniel Maffia, in *A Charming Field for an Encounter*, by Robert C. Alberts (NPS 1975).

The struggle that became known as the French and Indian War began in western Pennsylvania. George Washington, an obscure colonel of Virginia's militia, led the force that precipitated the conflict with the French. Warfare erupted all along the Pennsylvania frontier, as British, colonials, French, French-Canadians, and Native Americans battled to control the strategic forks of the Ohio.

Even after the final French defeat, this region continued to trigger confrontations among those who wished to exploit the area's resources. Disaffected Algonquin tribes who had fought in association with the French launched a series of offensives against the British presence in the west. Only the forced march and bloody victory of British and American troops at Bushy Run salvaged the precarious British garrison of Fort Pitt at the forks of the Ohio.

The American victory in the War for Independence and subsequent triumphs over the western Algonquin tribes allowed a flood of immigrants to occupy the lands west of the Alleghenies. These peoples made the growing town of Pittsburgh on the former site of Fort Pitt one of the most important points of embarkation for Americans spreading into the Northwest Territories and other lands along the Ohio.

Conflict over the region's resources and products would prove to be a recurring theme in western Pennsylvania's history. Attempts by the U. S. government to raise revenue from the whiskey-producing backwoods farmers of western Pennsylvania resulted in a full-scale rebellion against federal authority, known as the Whiskey Rebellion. This rebellion foreshadowed later and more bitter conflicts between the opposing American ideals of social order and individual liberty.

By the early 19th century, western Pennsylvania's role as a gateway to the new states and territories of the trans-Appalachian west was having a profound impact on the region's social and economic development. New towns sprang up, and established communities grew in response to the dynamics of America's trans-





*Photo courtesy of the Railroaders Memorial Museum, Altoona, Pa.*

Appalachian expansion. The dramatic success of the Erie Canal in uniting the eastern states with the developing West led the state to embark on a similar program of publicly financed internal improvements to compete with New York and its canal system.

The Pennsylvania Main Line of Public Works was a hybrid, part canal, part railroad, part portage railroad. This system's mongrel character reflected the barrier that western Pennsylvania's dramatic topography posed to the development of large-scale transportation. The Allegheny Front precluded the construction of an all-canal route between Philadelphia and Pittsburgh. Pennsylvania adapted to its geography with the construction of the Allegheny Portage Railroad, a system of level and portage railroad that allowed the transfer of goods, and later, entire canal boats over the Alleghenies.

The Allegheny Portage was at once an example of what could be accomplished by public investment in the infrastructure, and an economic boondoggle, a black hole into

which millions in state funds vanished, never to return. It, and the larger Main Line system, never seriously challenged the Erie's dominance of east-west trade.

On the other hand, it introduced new technological elements to American transportation, including the country's first railroad tunnel, wire ropes manufactured by John Roebling for the Portage inclines, and the Allegheny River canal aqueduct, the first of Roebling's suspension structures. The Main Line system also successfully linked the state, including western Pennsylvania, in a national and international network of commerce.

Pittsburgh had become, by the 1830's, one of the largest western river ports and the West's largest steamboat building center. Pittsburgh's steamboats engaged in trade as far west as St. Louis and as far south as New Orleans, the southern terminus of western river navigation. Western Pennsylvania's iron masters, distillers, and farmers turned to Pittsburgh as the logical conduit to the expanding markets in the Ohio and Mississippi valleys.

Pittsburgh's advantageous location at the forks of the Ohio made it one of the most important gateways to the trans-Appalachian west. But a number of other factors cemented the city's role as a crossroads between east and west. By the early 1800s, Pittsburgh already had a well-developed industrial infrastructure. Its machine shops and iron foundries helped make Pittsburgh a leader in steamboat production. Pittsburgh's machinists and metal workers were recognized throughout the trans-Appalachian west for the manufacture of the high-compression steam engines required for navigation on the unpredictable and often treacherous rivers of the West.

Western Pennsylvania's forests provided the timber for hulls and superstructures, and its coal mines turned out the fuel for steam power. The city's industrial and transportation endeavors existed in a symbiotic relationship. Steamboat construction stimulated growth in Pittsburgh's industrial enterprises, while they in turn provided the technology for efficient river navigation.

Between 1810 and 1850, Pittsburgh's population grew tenfold, from 4,768 to 46,601. The rest of western Pennsylvania experienced similar dynamic growth. A number of communities grew in response to the region's regional and national importance as a corridor for migration and commerce. The National Road, the only federally funded and constructed transportation improvement in antebellum America, passed through western Pennsylvania, acting as a catalyst for growth. The Pennsylvania Road between Philadelphia and Pittsburgh had much the same effect.

The region still lacked a truly viable solution to the geographic barriers that impeded the development of large-scale, all-weather transportation. In response to a new threat posed by the Baltimore and Ohio Railroad, the state responded by authorizing the construction of a rail line between Philadelphia and Pittsburgh. A successful railroad would reestablish Pennsylvania as a pathway for exchange

between the east coast and the developing West. The creation of the Pennsylvania Railroad would have enormous consequences for the state's economic, political, and social evolution.

The builders of the Pennsylvania Railroad answered the challenge of the Allegheny Front with the construction of the Horseshoe Curve and the Gallitzin Tunnels. The combination of these two engineering landmarks provided a reliable, all-weather transportation route over the Allegheny Ridge.

The completion of an intrastate rail line in Pennsylvania was a significant part of a larger national transition to rail. The commitment to rail would radically alter the face of the United States in the latter half of the 19th century. It also would provide the single largest catalyst to capitalist industrialization in postbellum America. The relationship of rail to steel would mirror the symbiosis of industry and river transportation in Pittsburgh, but on a scale that staggered the imagination.

American urban and economic development could not have taken the course it did after the Civil War without the advent of large-scale steel production. Steel provided the structural material for mid-rise and later high-rise city structures. Cheap steel rails made possible the thousands of miles of track that created a national marketplace. Steel was a vital component in the construction of a modern American navy between 1885 and 1910. By the outbreak of World War I, steel had made the United States the unparalleled industrial power in the world.

The region's steel industry traces its lineage to the earlier iron furnaces that had numbered in the scores in western Pennsylvania. These small charcoal-fired furnaces laid the foundation for the transition into larger-scale industrial iron production. The Cambria Iron Company of Johnstown, founded in 1853, was a leader in the American iron industry. In 1854, Cambria installed a new type of rail rolling mill, the three-high rolling mill, that allowed it to compete successfully with the



British iron manufacturers who heretofore had dominated the American market for iron rails.

Cambria continued to innovate when it became the sixth iron plant in the country to install a Bessemer converter. The Bessemer process made possible the cost-effective production of steel rails. The introduction of steel rails changed the face of American railroading. Steel overwhelmingly outperformed iron rails for longevity and load-bearing capacity. By 1907, 97% of the nation's railroad miles were built with steel rails.

The proven technology of the Bessemer process and the demand created by the superiority of steel rails stimulated rapid development of the region's steel industry. Andrew Carnegie, a former Pennsylvania Railroad executive turned entrepreneur, witnessed in Great Britain the application of Bessemer hearths in steel production. Carnegie returned to the United States determined to build a steel plant dedicated to steel rail production. Carnegie located his new plant at Braddock's Field, east of Pittsburgh. This strategic site abutted both the main line of the Pennsylvania Railroad and the Baltimore and Ohio's Pittsburgh line.

Not only the plant's location, but its very name manifested the intimate connection between the steel and railroad industries. Carnegie named the plant the J. Edgar Thomson Works. Thomson was a short-term investor in the firm and, more importantly, the president of the Pennsylvania Railroad. The railroad and the Thomson Works formed a long-lasting relationship that symbolized the interdependency of these rapidly growing industrial endeavors.

Cambria remained an important component in the region's steel and iron-making infrastructure but eventually was overshadowed by the plants in Pittsburgh. Pittsburgh's geographic location and transportation network afforded far greater potential for industrial development. Technological innovations at the Thomson Works, the Homestead Works, and the Duquesne Blast Furnaces soon

outpaced improvements and production at Cambria. Its railroads and rivers connected both to markets for finished products and the raw materials required for steel production, particularly the coal fields and coke ovens of western Pennsylvania.

Pennsylvania was the nation's leading coal producer throughout the latter half of the 19th century and well into the 20th century. The demands of the region's steel producers prompted construction of tens of thousands of beehive and the later by-product coke ovens throughout the counties south of Pittsburgh. Coal miners across the region suffered the debilitating effects of black lung.

An essential determining factor in the evolution of western Pennsylvania's distinctive character was the remarkable diversity of its human cultures. German-American and Scotch-Irish immigrants moved into the region in the late 18th century. Great numbers of new immigrants, particularly Germans, Welsh, and Irish, came to the region in the early 1800s. The astonishing industrialization of western Pennsylvania generated still greater rates of immigration, predominantly southern and eastern Europeans.



*Photo courtesy of the Johnstown Area Heritage Association Archives.*

The behavior and traditions of these new arrivals added an exotic cultural twist that often aroused the nativist sentiments of many of the region's other residents. The newcomers were not so bizarre, however, as to make them unfit to exploit as cheap labor in the region's coal mines, factories, and steel plants. On the job, immigrant workers found themselves exposed to the dangers of heavy industrial labor — intense heat from molten metal, heavy manual labor, coal dust, and explosions that claimed life and limb. In spite of the difficult working conditions, these immigrant workers made up a significant part of the industrial workforce that built and maintained the railroads, mined the region's coal, and manufactured its steel.

One of the most dramatic effects of industrialization was the creation of a permanent American working class. Despite the growing numbers and importance of industrial workers, most American capitalists viewed labor, particularly unskilled labor, as nothing more than a commodity. Workers were little more than interchangeable units who had no rights to negotiate or bargain collectively. United action on the part of workers often was interpreted as an assault on the perceived sanctity of private property. When unions did organize, they risked confronting head-on the combined power of industrialists and the state itself. Western Pennsylvania witnessed two of the most significant labor strikes in American history. Both the Railroad Strike of 1877 and the Homestead Strike of 1892 played pivotal roles in the evolution of American industry and labor.

Both strikes ended in defeat, and labor learned again that the combined power of capital and government presented an almost insurmountable force that doomed collective action to almost certain failure. These two strikes provide vivid reminders that conflict over the region's resources had not ended in the 18th century.

In 1901 Carnegie sold his steel holdings to J.P. Morgan to create the United States Steel Corporation. U.S. Steel controlled almost two-thirds of the nation's total steel production. It owned

vast tracts in the Mesabi iron range and a Great Lakes fleet to transport ore. It owned over 1,000 miles of rail lines and employed over 170,000 workers. It was one of the most completely integrated corporations, both horizontally and vertically, that American industry had ever known. U.S. Steel symbolized the scope of the nation's steel industry, which continued its worldwide dominance until after World War II.

After World War II the region's industries began a long decline, especially in its steel and coal industries. Symbolized by the layoffs and plant closing of the late 1970s and early 1980s, the steel industry's decline was due, in part, to the rise of steel production in other parts of the country, global competition, and the failure of American companies to invest in new technology to keep pace with their competitors.

Western Pennsylvania paid a heavy price for the leading part it played in American industrialization. Pollution turned the Monongahela and Ohio Rivers near



*Photo courtesy of Steel Industry Heritage Corporation, from the collection of Pittsburgh History and Landmarks Foundation.*



Pittsburgh into lifeless gutters for the city's steel mills and factories. Pittsburgh's air became a national laughingstock, but the joke obscured the hazards of breathing air so dirty that streetlights often burned at high noon. Mines scarred the land with slag heaps, and acid mine runoff killed smaller streams. Forests were clear cut for charcoal furnaces and construction. The destruction of the region's watersheds compounded the impact of the devastating flood at Johnstown in 1889, one of the worst disasters in the nation's history. Coal miners died of black lung by the hundreds.

The steel, coal, and railroad industries have dwindled in the last four decades. The decline of these industries depressed local economies. Thousands of young residents left to search for opportunity elsewhere. But the decline of industry has also presented new challenges and opportunities for western Pennsylvania. Some of the environmental damage has begun to heal. Pittsburgh's air has improved dramatically, and its rivers now provide recreation for sailors and water skiers. Many of the region's forests have recovered, and the state has begun to address the enormous

challenge of mitigating decades of damage wrought by the mining.

With the loss of coal mining and steel production and the recognition that those industries will not again be the dominate forces they once were, communities are attracting diverse new businesses to the region. The impact of a varied economy with high-tech, medical, communications, environmental, and service-center industries, along with some smaller, diversified steel production is now being felt across the region.

In addition, western Pennsylvania has already made adjustments in response to its diminished industrial base. Its coal resources are now firing electrical generating plants. Its cultural and natural resources now serve as attractions for tourists. Pittsburgh's new airport is the latest expression of its traditional role as a transportation gateway. Its railroads still are vital as links in the national marketplace. Western Pennsylvania will continue to evolve, and its evolution will be determined by the same factors that shaped it over time, its people, its resources, and its land.



## STORY ELEMENTS

In telling western Pennsylvania's dynamic and dramatic history, several interpretive stories emerge. The following story elements address the complex relationships between people and events within the region, including the region's role as a catalyst for national and international economic and industrial development. These elements are not ranked in order of importance or significance.

### CONFLICT AND CONQUEST

The War for Empire in western Pennsylvania tells the story of attempts by cultural groups to control and exploit the region's rich, and, at least in some groups' perceptions, limitless natural resources. Long before Europeans began fighting each other for control of the region, Iroquois and Algonquin tribes vied for dominance along the Appalachian Ridges and the Ohio River. Control of this gateway to the continent's interior led to western Pennsylvania's role as a pivotal point for battles between Indian and European powers in North America.

### WESTWARD EXPANSION/ EARLY SETTLEMENT

Western Pennsylvania and the forks of the Ohio comprised a vital corridor between the Atlantic Ocean, the Great Lakes, and the interior beyond the Appalachian Front. Establishing a presence in this strategic region provided one of the keys to controlling the entire Ohio valley. America's success in first driving out British and Native American competitors in the upper Ohio valley opened the door for American expansion throughout the trans-Appalachian west.

### THE TRANSPORTATION REVOLUTION

Western Pennsylvania's historic transportation corridors and networks fostered regional and national developments in technology, commerce, and national expansion that eventually led to widespread growth and expansion of the transportation industry. Pittsburgh's position at the forks of the Ohio determined its rapid rise as an important crossroads of transportation routes.

### SOCIETY IN AN INDUSTRIAL CULTURE

At the heart of the historic events in the region have been the people and their communities. The cultural groups that have lived in the western Pennsylvania region have created a living heritage of villages, towns, and cities that reflect the dynamic nature of the events that occurred inside and outside their boundaries. Native-American camps and villages and European and American farming communities, coal patches, steel mill towns, and metropolitan cities are all found among the region's hills and valleys. These communities bear testimony to the dynamic nature of the people and the rich community life that created the region's distinct character.

### INDUSTRIALIZATION

The rapid, heavy industrial growth that took place in America during the 19th and early 20th centuries required a combination of significant capital investment, technological innovation, a large and capable work force, an abundance of readily available natural resources, and a political climate favorable for such large-scale development. These essential elements came together in the western Pennsylvania region.

## AMERICAN LABOR HISTORY

The history of America's working class is a key ingredient in the industrial heritage of the western Pennsylvania region. Struggles for decent working conditions, better wages, health care benefits, and union representation crossed individual industry lines and became a common element of the working class. Men fired the furnaces, dug the coal, and built the railroad network that tied the industrial region together. At the same time women and children often worked at industrial jobs or other work to supplement the family income. The success and failures of working people in the western Pennsylvania region were reflected in labor/management relations across the nation.

## INTERACTION BETWEEN PEOPLE AND THE LANDSCAPE

The history of the western Pennsylvania region reflects the patterns of human interaction with the distinctive physical characteristics of the region. Western Pennsylvania's dramatic topographical features, most notably the Allegheny Ridge and the forks of the Ohio River, its abundant natural resources, and its strategic geographical location have attracted different cultures over time. The region's distinctive physical qualities have helped and hindered development throughout the region. Several of the region's resources are significant examples of how humans manipulate their environment and the impacts that have resulted.



*Photo courtesy of the Railroaders Memorial Museum, Altoona, Pa.*





## RESOURCES

Representing the story elements are a large variety of nationally and regionally significant cultural, scenic, and recreational resources. Following is a general description of the resources within the study area. Detailed descriptions of specific resources can be found in appendixes G and I.

### CULTURAL RESOURCES

The diverse cultural resources of western Pennsylvania and northern West Virginia offer an opportunity for visitors to understand the evolution of the area from colonial times up to the post-industrial era. For more than 200 years the region has held a prominent place in the events that led to America's standing in the world. The cultural resources chosen for the alternatives in this study reflect the region's participation in those national and, at times, international events that helped shape the nation's economic character.

The resources that illustrate the region's complex and dynamic heritage include (1) industrial sites such as coke facilities, steel mills, iron furnaces, and railroad construction and repair facilities; (2) historic structures ranging from the ornate mansions of industrial barons to the simple forms of workers' housing, to commercial architecture found throughout the region; (3) battlefields and frontier forts where early military struggles determined which group would ultimately control and develop the area; (4) transportation resources, from tollhouses along the National Road to the Pennsylvania Railroad and Baltimore and Ohio's network of rail lines moving people and goods into and out of the region; and (5) rural and urban communities, including villages that represent early settlement patterns and agricultural development as

well as coal patch and mill towns that were created with the development of the region's varied industries.

Cultural resources, especially those designated as visitor facilities, were evaluated in relation to resource integrity and to the story elements that are represented by the resource. Overall, the region presents a variety of significant resources that can be used to represent the region's heritage.



*Photo courtesy of Johnstown Area Heritage Association Archives.*

The ties between natural and cultural resources can be seen in the region's cultural landscapes where resources so closely intermingled as to become one. Coal patch communities often became an extension of the coal mines as patch housing was located as close to the mines as possible while 'bony piles' became playgrounds for children. Other industrial settings also reflected their natural surroundings. The steel mill communities

along the Monongahela River rose along the riverbanks and above the mills located there. Therefore, cultural resources were not viewed independent of their natural surroundings, they were considered part of the whole landscape, natural and cultural.

## **NATURAL RESOURCES**

The natural resources directly influenced the historic development of the region and its cultural resources. Important natural resource elements that characterize the region include topography, water resources, vegetation, and wildlife.

### **Topography**

The study area consists of portions of two physiographic provinces: the Ridge and Valley Province and the Allegheny Plateaus Province. The Ridge and Valley Province extends along the eastern part of the study area and is characterized by steep, forested ridges, sometimes referred to as folded mountains, and a series of parallel valleys. Elevations range between 600 and 3,200 feet.

The Allegheny Plateaus Province is west of the Ridge and Valley Province and covers the majority of the study region. It is characterized in part by steep, forested ridges that transition into the Ridge and Valley Region, and by high plateaus that have been cut by a multitude of rivers and deep valleys. Its elevation ranges from 700 to 3,000 feet.

### **Water Resources**

An important component of the region's natural resources is the extensive network of streams and rivers. These waterways were a critical factor in the historic development of the region.

Topography and climate directly influence the region's water resources. Although the topography inhibits the presence of natural lakes, it contributes to the region's extensive network of streams and rivers.

Precipitation contributes to surface water flows, but the primary source of the majority of the region's rivers and streams is groundwater.

The study area is predominantly within two river basins — the Ohio and the Susquehanna river basins. The southeast portion of the study area lies in the Potomac River Basin. The region's major rivers include the Beaver, Ohio, Monongahela, Allegheny, Youghiogheny, Cheat, Kiskiminetas, Conemaugh, the Little Juniata, and the Raystown Branch of the Juniata River.

### **Vegetation and Wildlife**

The region is in the Appalachian Oak Forest section of the Eastern deciduous forest province. Northern red oak and white oak are dominant tree species. Other common varieties include maple, birch, hickory, beech, poplars, and pine. Much of this forest is second- and third-growth forest because of the extensive clear-cutting (for fuel, construction and development) that has taken place over the centuries. However, there are protected old-growth stands and outstanding species within some of the region's state parks, forests, and natural areas, including blooming laurel, rhododendron, white pine, and hemlock. In valleys and areas with gentle terrain, the forest has been cleared for agricultural, urban, and other land development.

The region's vegetative and water resources support a variety of wildlife, which are typical of species that are common in deciduous forest and agricultural habitats in the northeastern United States. Aquatic and semiaquatic species are generally uncommon but may be abundant where suitable habitat occurs in and along water resources. Although some of the region's rivers are barren of wildlife because of poor water quality and pollution, there is a wide variety of both warm water and cold water game fish species. Important terrestrial game also occupies area habitats and include white-tailed deer, wild turkey, black bear, ring-necked pheasant, woodcock,



## SCENIC AND RECREATIONAL RESOURCES

The region's rich forests, diverse topography, and abundant water resources offer a variety of scenic and recreational resources and opportunities. Many of these resources are managed by public agencies and include state parks, state forests, state game lands, and federal lands. Multiuse trails, nature reserves, and sanctuaries are on private or other public agency lands.

Scenic resources are a part of all the recreational resource areas, whether identified as such or not. The region's mountainous landscape offers opportunity for scenic views, whether from a trail, road, or picnic spot. Seasonal variations such as spectacular fall colors and spring wildflowers are important attractions to visitors and residents. In addition, diverse wildlife, unusual geological formations, and many streams, rivers, and waterfalls are prevalent throughout.

Recreational opportunities abound in the western Pennsylvania region. An important component of the region's recreational resources is its diverse multiuse trails network and a number of important planning initiatives that tie into it. With assistance from the National Park Service, SPHPC is in the process of completing a comprehensive "Regional Trails Plan" for the nine-county region in southwest Pennsylvania. The Pennsylvania Chapter-Rails to Trails Conservancy, Pennsylvania Department of Environmental Resources, and the Pennsylvania State Heritage Parks Program among others are also involved with trail network initiatives. Both existing and planned trails provide tremendous opportunities for linking the region's state parks and forests to other area natural and recreational resources, as well as to the area's many cultural resources. Abandoned rail lines are key resources for implementation of trail plans, as their grades will accommodate a multitude of uses, such as hiking, bicycling, cross-country skiing, and horseback riding. They also provide opportunities for interpretation and access to both cultural and natural resources that would otherwise be infeasible or

inaccessible. (See appendix I for a more comprehensive list of resources and the accompanying Scenic and Recreational Resources map.)

The region's streams, rivers, lakes, and reservoirs provide a variety of recreational opportunities, including white-water rafting, canoeing, boating, waterskiing, fishing, and swimming. In addition, a multitude of parks and public lands provide for ample hunting, camping, and picnicking opportunities.



## THREATS TO RESOURCES

With the regional trend toward economic diversification and revitalization, old industrial plants and mills are being razed to make room for new development. Riverfront resources are especially susceptible to the impacts of redevelopment, as these properties are in high demand for recreation, commercial, industrial, residential, and other land uses.

Many resources, particularly those in rural areas, suffer from neglect. Many industrial towns are deserted or relatively inactive. Historic fabric is being threatened or destroyed, and the structural integrity of abandoned furnaces, forges, and industrial plants is at risk, with potential rehabilitation or restoration becoming more costly every year. In some instances, organizations are actively working to remove historic

industrial resources such as coke ovens for safety or other reasons.

Threats to publicly owned cultural resources, such as units of the national and state park systems, are minimal relative to those in private ownership because of the protection generally afforded by the managing agencies. Although roughly 25% of the cultural resources under consideration are publicly owned, most of these resources are related to nonindustrial themes. In many areas, comprehensive planning needed to protect privately owned historic resources does not exist. Those areas that have long-term plans do not always consider the value of cultural resources and the potential benefits of conservation.

The region's scenic and recreational resources are key factors affecting its history. However, these resources are also threatened by local and regional human activity. The quantity and quality of available scenic and recreational resources could be substantially affected by the extent and distribution of residential, commercial, and industrial development; agricultural and forestry practices; mining activities; wastewater treatment; and other land-use activities. The quality of recreational experiences is also subject to the effects of these and other influences. Specifically, continued improvement in the quality of the region's rivers is a key consideration in the future of water-based recreation.

With the changing conditions throughout the region, the cultural, scenic, and recreational resources will continue to be affected.





## RESOURCE EVALUATION

A close look at the western Pennsylvania region reveals a diversity of resources that illustrate the region's distinct and dynamic heritage, a heritage that spans more than 200 years of American history. Battlefields, frontier forts, coal mines, coke ovens, and steel mills inhabit the landscape and give visitors a sense of the range of significant events that have happened there. But resources comprise only one part of the region's heritage. Western Pennsylvania's history, its songs and stories, and the lives of its people are the other components of this region's rich and varied heritage. The men and women of a hundred cultures and languages and nationalities made and lived this heritage, and in turn were changed by it. Western Pennsylvania's heritage is in its resources, in its history, and in the faces of its people.

This study of alternatives follows NPS guidelines for special resource studies and identifies several nationally significant resources that represent the diverse and dynamic nature of the area's heritage. However, western Pennsylvania's distinctive heritage required a more nontraditional approach to resource evaluation.

In a number of instances, the integrity of physical resources had been compromised to some degree. However, the events associated with these resources had so significantly shaped the nation's history that the resource's importance had to be addressed in some fashion. Therefore, the study of alternatives has evaluated the region's significance based on both its tangible and intangible resources, and suggests that a new perspective is needed in evaluating the resources.

The integrity of resources is measured not only by the specific resource — be it a production facility, worker housing, battlefield, rail line, canal lock, or archeological site — but also by the surrounding commercial district, churches, schools, parks, or natural landscape. In addition, a site's distinctive ambience also contributes to the value of the visitor experience. This intangible quality combines with a resource's surroundings and the people whose lives have been shaped by their connection to that resource. This study has attempted to incorporate this holistic approach.





## ALTERNATIVES

Three alternatives were developed for this study. In addition to the standard methods for determining alternatives for the study — significance of the themes and the integrity and significance of the resources — this study considered the regional identity of the study area as described in the previous section. In determining the alternatives, all these ingredients were considered important to the evolvement of the western Pennsylvania region. (See appendix B for methodology used in formulating alternatives.)

### OVERALL CONCEPT FOR ALL ALTERNATIVES

All alternatives, to one degree or another, address all the story elements described in the previous section. (See the Overall Concept for Alternatives chart for specific elements related to each alternative.)

The first alternative, *Building a World Economic Power*, focuses on Conflict and Conquest, Westward Expansion/Early Settlement, Transportation Revolution, Society in an Industrial Culture, Industrialization/ American Labor History, and the Interaction Between People and the Landscape. These story elements were determined to be the most significant in the region. Of these, the most predominant one of the region is industrialization. Therefore, industry is the focus of the second alternative, *Industry: Labor, Capital, Technology, and Community*. In this alternative the significant industries of the region — railroading, aluminum, glass, iron, steel, coke, coal, electricity, steamboat building, and brickmaking — are highlighted. Of these industries, the region is most renowned for iron, steel, and coke. The third alternative, *The Evolution of Iron and Steel*, focuses on these three industries.

### ELEMENTS COMMON TO ALL ALTERNATIVES

A hub and spoke concept was selected as the method best suited to express the interdependent character of the region's resource base. The hubs chosen were determined to be the sites that best illustrate the broadest possible perspective of a particular story element. The spokes provide insights into specific facets of that story element. The hub and spoke strategy most fully articulates the way in which the region's diverse resources shaped its history.

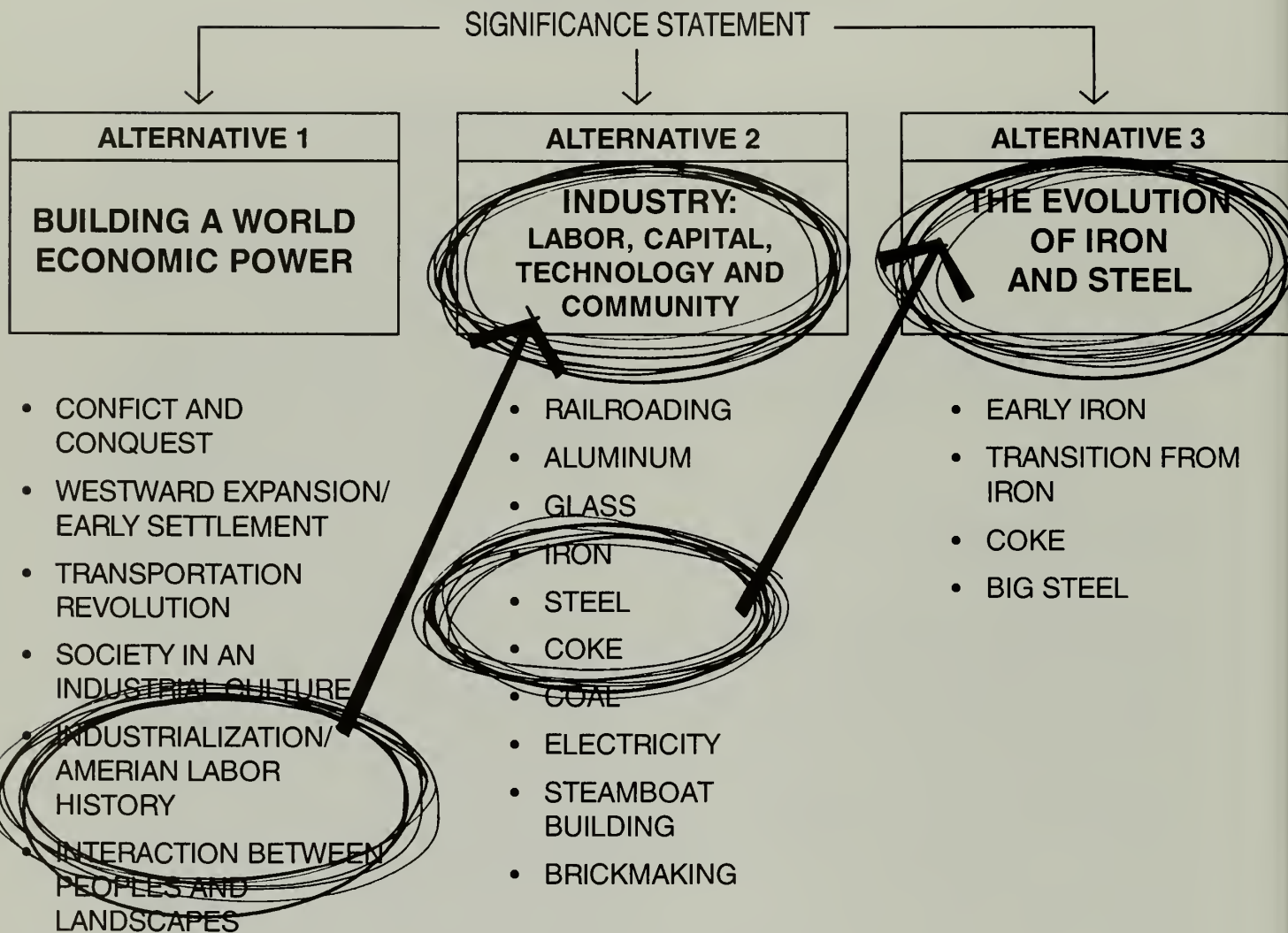
#### Hubs

Hubs would be the resources of the region with the primary visitor contact multithemed facilities. They would offer orientation, information, and interpretation of the regional concept and the overall theme. Even though each hub would be an excellent representation of a specific story element (such as a national historic landmark, national historic district, or state landmark), the hub would also tell other stories. For example, a hub that focuses on the steel industry would also tell the story of labor and the community life associated with that industry. (See appendix F for criteria used in determining hubs for each alternative.) Interpretation at the hubs would also express the interrelationships between each hub. Under alternative 3, interpretation at Cambria Iron Works would express its contribution to the evolution of iron and steel as well as its relationships to Mt. Etna, Connellsville, and Homestead.

When feasible the hub facility would be incorporated as part of an existing operating facility, such as a national park or state heritage park site. If one does not exist, an existing historic structure that could be



# OVERALL CONCEPT FOR THE ALTERNATIVES



adaptively reused, with possible expansion if necessary, would be used. By locating the hub in an existing historic structure, the facility would become a part of the local historic scene and in turn strengthen the historic community and emphasize the historic ambience for visitors.

Even though no building programs have been developed for any of the hub facilities, it is envisioned that each facility would have a similar function. In addition to providing visitor orientation, the facilities would provide all the basic visitor services such as restrooms and adequate parking. Information dissemination, interpretive programs, space for special events, permanent and changing exhibits, and audiovisual presentations would be included. The facilities would also contain administration and support functions and most likely a retail and concession area.

In addition to providing visitor services, hubs would become an integral component within each community. As the center for many local activities, education, and research programs, hubs would instill a sense of caring and pride for local residents. The hub facilities would serve the local communities by accommodating performances, special events, and community celebrations; providing educational opportunities for all ages to learn about the region's cultural heritage; and supporting and facilitating the preservation of the region's cultural heritage by establishing research programs and assisting in research activities.

Visitors to the hubs would receive a complete interpretation of the overall significance of the region, and they would also be encouraged to visit the associated spoke sites (discussed below), other hubs, and the region's recreational facilities.

## Spokes

Spokes would be cultural resources directly related to the theme of the associated hub. They would be different than hubs in that they would provide visitors with only a

specific component of the complete story and generally would not provide the overall comprehensive interpretive approach and facilities as described above. The cultural resources would illustrate an aspect of the major theme represented at the hub. For example, as a spoke for the Connellsville Region hub, Dawson represents the contrast between the wealthy company owners and that of the company workers, whereas Shoaf represents the technological innovations on an early 20th century beehive coking operation; both are significant parts of the coke story which will be interpreted at the hub as well.

The resources would have some level of national or regional recognition or have the potential for some level of recognition. Spokes might be located at an existing facility. Development could range from interpretive kiosks and wayside exhibits with limited or no access, to extensive interpretive facilities and preservation measures.

In addition to those spokes identified in each alternative, the following resources should also be considered for inclusion at the appropriate time in any conservation efforts that are implemented in the region. Spoke resources may change over time and be identified by local groups or others involved in regional heritage planning.

Old Economy Village  
Charles Schwab Estate  
Linden Hall  
Ambridge/Aliquippa  
Elizabeth  
Donora  
Rachel Carson Home  
Southside Pittsburgh Historic Districts  
Coal-fired electric plants in Indiana  
County  
Greensboro

## Conservation of Regional Resources

Cultural resources provide an important link to the past and are key to understanding the present and future. Threats to the region's cultural, natural, and

recreational resources underscore the need for resource conservation; therefore conservation of cultural resources would be an integral part of the alternatives' proposed resource developments. Conservation would be achieved through physical treatment of the cultural resources, documentation, interpretation, and conservation of local heritage. Documentation efforts would also include the preparation of national register nominations and local ordinance districts.

The physical conservation of onsite resources or the treatment of historic structures, as outlined by NPS-28, *Cultural Resource Management Guideline* (NPS 1993h), includes four potential categories: preservation (or stabilization), rehabilitation, restoration, and reconstruction. For each of the alternatives, a portion of each resource would receive some level of treatment. (See appendix C for the four categories of treatment.)

Documentation efforts would include collecting and archiving oral histories, historic and current photographs and architectural drawings, blue prints, maps, and appropriate artifacts. Proper treatment and storage of these collections would ensure their conservation and availability for future use. Documentation efforts would also include the preparation of national register nominations and local ordinance districts.

Interpretation of story elements would be offered onsite and offsite through publications, audiovisual presentations, waysides and exhibits, or personal guided tours. This would help to foster an awareness of the region's significance and the resources that contributed to that significance. Interpretation would also educate visitors about the importance of conservation activities in preserving the region's heritage for future generations.

The success of resource conservation and the tourism that accompanies it could be an asset to the local economy but could also have negative impacts on the communities. To maintain a healthy relationship between visitors and local residents while achieving

conservation goals, community members would be involved in various conservation efforts. When actively involved, residents would gain a sense of ownership of their heritage and a sense of pride in sharing their heritage with others. Through interaction with the community and resource-related activities, visitors would gain a greater appreciation of past community life and its evolution into the present, and the community would maintain its living heritage.

## **Interpretation and Visitor Experience**

Typically, visitors would stop at a hub at the beginning of their visit. Their experience at the hubs would have three components — orientation, activity planning, and resource interpretation. Here, through interpretive media that may include exhibits, interactive audiovisual displays, and publications, visitors would be introduced to the overall story, the location of the other hubs and spoke sites, and the variety of heritage resources available. The format of this core of interpretive media would be the same in each of the hub facilities, so that once visitors have become familiar with the orientation media at one site they would be comfortable using the same media at any other hub.

As mentioned above, a major function of hubs would be to help people plan their visits. The hub would serve as a clearinghouse for information on regional cultural heritage activities. Information on tours, fairs, crafts, and special events would be readily accessible. Guide books, tour route brochures, automobile tour tapes, and other self-guiding media would also be available. Through a combination of interpretive media and personal services, visitors would be shown how they can integrate recreational resources such as biking and hiking trails into their visit to heritage sites.

Hubs would also provide visitors their first hands-on experience with theme-related resources. This initial experience would be critical in establishing the thematic context within which visitors would begin to relate



to the resources at the spoke sites. Interpretive media would set the stage and give the visitor enough information so that they could understand the story and how the hub and spoke resources fit into that story. Visitors would not, however, get so much information at the hubs that they would feel it unnecessary to visit the spoke resources. The priority would be to encourage the broader visitor experience that includes visits to as many spoke resources as possible.

Interpretation of spoke resources would be designed to give visitors the "this is where it happened" experience, adding depth and texture to background information and experiences gained at the hubs. Each spoke resource would be identified by a theme-coded sign (logo, color, etc.) to reinforce the themes as visitors encounter them in the field. Each spoke would have such interpretive media and programs as wayside exhibits, audio tape programs, and guided interpretive programs. Spoke resources would tell its part of the story while expanding the visitor's appreciation of the broader context.

The region's social evolution is too diverse and complex to capture at only one hub site. Therefore, the community life of western Pennsylvania will be interpreted as an important element of all alternatives.

### **Resource Linkages and Scenic and Recreational Resources**

Many cultural resources are situated in specific areas because of the region's natural resources. Landforms, mineral deposits, rivers, soils, and vegetation all had an impact on events and land development throughout the area. The cultural resources are closely integrated with the natural resources and cannot be considered exclusively. In each of the alternatives these natural/cultural resource relationships would be interpreted. Visitors would also be guided to scenic and recreational resources, whether through recreational linkages between resources, or through readily available information about regional attractions.

Existing natural, scenic, and recreational resources within the region include state parks, forests and game lands, rivers, lakes, trails, and natural areas. These existing resources could be incorporated into the alternatives in the following manner:

**Regional Trails.** Some of the existing trails that are common to all alternatives are the Three Rivers Heritage Trail, Steel Heritage Trail, Juniata River Corridor Lower Trail, Youghiogheny River Trail, Laurel Highlands Trail, and the New Portage Trail. Some planned trails that are common to all alternatives are Conemaugh River Greenway, Path of the Flood, Little Conemaugh Trail, and the extension of New Portage Trail.

New trails would be built from the resource (and possibly through the resource site, depending on the resource) to an existing trail; pedestrian and bicycle trails would be designated on low-trafficked roads to connect the resource with existing trails, parks, or rivers; abandoned railroads that were once used for the resource would be converted into trails and linked to existing trails, providing not only a means of access but an opportunity for additional interpretation of the region's transportation system.

**Rivers.** Rivers that are common to all alternatives include the Monongahela, Youghiogheny, Ohio, Allegheny, Kiskiminetas, and Conemaugh rivers, and the Frankstown Branch of the Juniata River. Boat tours on the major rivers would interpretively and physically link the resources, and where appropriate, canoe put-ins and other public river access would be provided.

**Other Scenic and Recreational Resources.** Visitors would be encouraged to visit and would be informed about nearby scenic and recreational resources. (See appendix I for a more comprehensive list of resources and the accompanying Scenic and Recreational Resources map.)



## Transportation Routes

Resources under all alternatives would be linked using the Southwestern Pennsylvania Industrial Heritage Route (Heritage Route). The heritage route would use existing roads that coincide with some of the historic transportation routes and corridors that helped shape the region's heritage. All hubs and spokes in the three alternatives are within or are adjacent to these historic corridors, which would facilitate their inclusion in the heritage route system. In the future, additional spurs or subloops can be added to the existing heritage route to connect any of the hubs or spokes. (See Regional Transportation Corridor map in appendix J.)

## Sustainable Design Practices

Sustainable design or sustainability is "the capability of natural and cultural systems to maintain themselves over time" (NPS 1993c). Beyond self maintenance, sustainability is a mind frame or attitude and includes environmental stewardship, social responsibility, and economic viability. As described and promoted in the NPS publication, *Guiding Principles of Sustainable Design*, sustainability would be incorporated throughout the development process of all of the alternatives, including planning, design, and construction phases.

During subsequent planning phases, each resource would be evaluated to determine the extent of preservation necessary to adequately convey its historical significance and maintain its historical integrity. The evaluation would also cover cleanup and restoration of natural resources and proper disposal of hazardous onsite materials. Efforts would determine the energy, expense, and resources necessary not only for preservation, but management, use, and sustained maintenance of the resource. Use of nonhazardous materials, recycling

practices, and generation of little waste would be incorporated into a comprehensive management strategy.

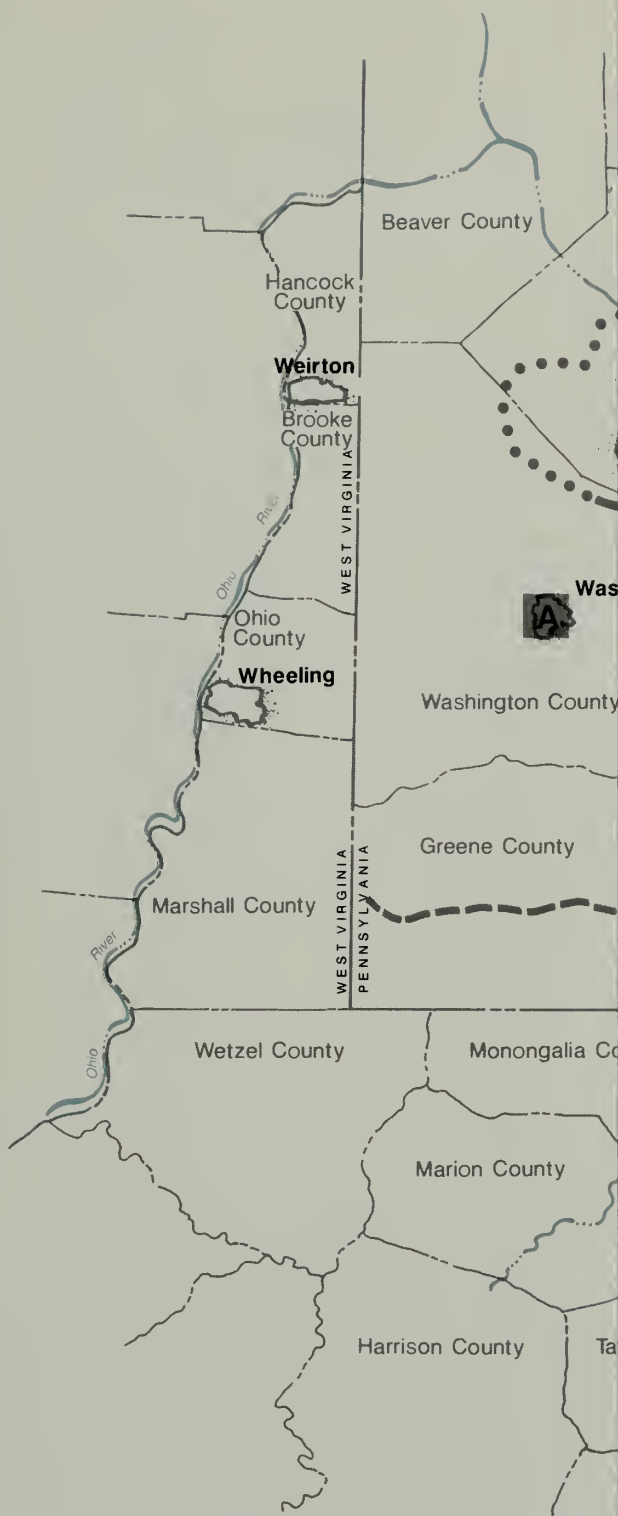
Interpretation of sustainable practices would also occur at the resources to educate visitors about environmental exploitation of the region and about past and present sustainable applications.

## ALTERNATIVE 1: BUILDING A WORLD ECONOMIC POWER

Under this alternative, visitors would gain insights into the way in which the region's rich resource base, strategic geographic setting, and diverse human cultures combined to create a rich and complex historical record of regional and national significance. The unique character of western Pennsylvania's landscape invited a variety of people to attempt to control and exploit its rich potential. The people and their technology changed over time; their motives showed a remarkable similarity. It is this historical continuity that visitors would experience through the resources and stories associated with building a world economic power.

## Hub and Spoke Resources

The following story elements would be reflected at the hubs and spokes throughout the region. As described under the previous section, the hubs would contain a more comprehensive interpretive approach, and the spokes would contain more specific aspects of the story elements. An \* indicates those resources that have conservation treatments and ongoing maintenance in place or resources that might have visitor facilities. Abbreviations are as follows: NB: National Battlefield, NHL: National Historic Landmark, NM: National Monument, NHS: National Historic Site. (See the Alternative 1 map for locations of hubs and spokes.)



### CONFLICT AND CONQUEST

HUB: FORT NECESSITY NB



SPOKES: A. FORKS OF THE OHIO NHL (Fort Pitt Museum)  
B. BUSHY RUN NHL  
C. FORT LIGNIER  
D. FORT BEDFORD MUSEUM



### WESTWARD EXPANSION / EARLY SETTLEMENT

HUB: FRIENDSHIP HILL NHS



SPOKES: A. DAVID BRADFORD HOUSE  
B. UNIONTOWN DOWNTOWN HISTORIC DISTRICT  
C. FORKS OF THE OHIO NHL (Fort Pitt Museum)  
D. SOMERSET HISTORICAL CENTER  
E. ESPY HOUSE NHL  
F. WEST OVERTON VILLAGE



### TRANSPORTATION REVOLUTION

HUB: ALLEGHENY PORTAGE RAILROAD NHS



SPOKES: A. HORSESHOE CURVE NHL  
B. MT. ETNA IRON FURNACE COMPLEX  
C. EAST BROAD TOP NHL  
D. BEDFORD HISTORIC DISTRICT  
E. SEARIGHTS TOLLHOUSE NHL  
F. BROWNSVILLE COMMERCIAL AND  
NORTHSIDE HISTORIC DISTRICTS  
G. FORKS OF THE OHIO NHL (Fort Pitt Museum)  
H. SALTSBURG HISTORIC DISTRICT  
AND CANAL PARK



### SOCIETY IN AN INDUSTRIAL CULTURE

HUB: CAMBRIA CITY HISTORIC DISTRICT



SPOKES: A. WINDBER / SCALP LEVEL HISTORIC DISTRICTS  
B. SOUTH FORK FISHING AND HUNTING  
CLUB HISTORIC DISTRICT  
C. LEISENRING NO. 1 COMPANY TOWN  
D. ALLISON MINE AND COMPANY  
TOWNS NOS. 1 AND 2  
E. HOMESTEAD HISTORIC DISTRICT  
F. MILLIONAIRES' ROW  
G. VANDERGRIFT



### INDUSTRIALIZATION / AMERICAN LABOR HISTORY

HUB: HOMESTEAD / CARRIE FURNACE



SPOKES: A. ALCOA ALUMINUM  
RESEARCH LABORATORIES  
B. WESTINGHOUSE ELECTRIC COMPANY  
C. WESTMORELAND GLASS COMPANY  
D. BROWNSVILLE COMMERCIAL AND  
NORTHSIDE HISTORIC DISTRICTS  
E. SHOAF COKE WORKS  
F. CAMBRIA IRON COMPANY NHL  
G. EUREKA MINE 40  
H. RAILROADERS MEMORIAL MUSEUM  
I. MT. ETNA IRON FURNACE COMPLEX  
J. HARBISON-WALKER REFRACTORIES COMPANY



### INTERACTION BETWEEN PEOPLES AND THE LANDSCAPE

HUB: JOHNSTOWN FLOOD NM

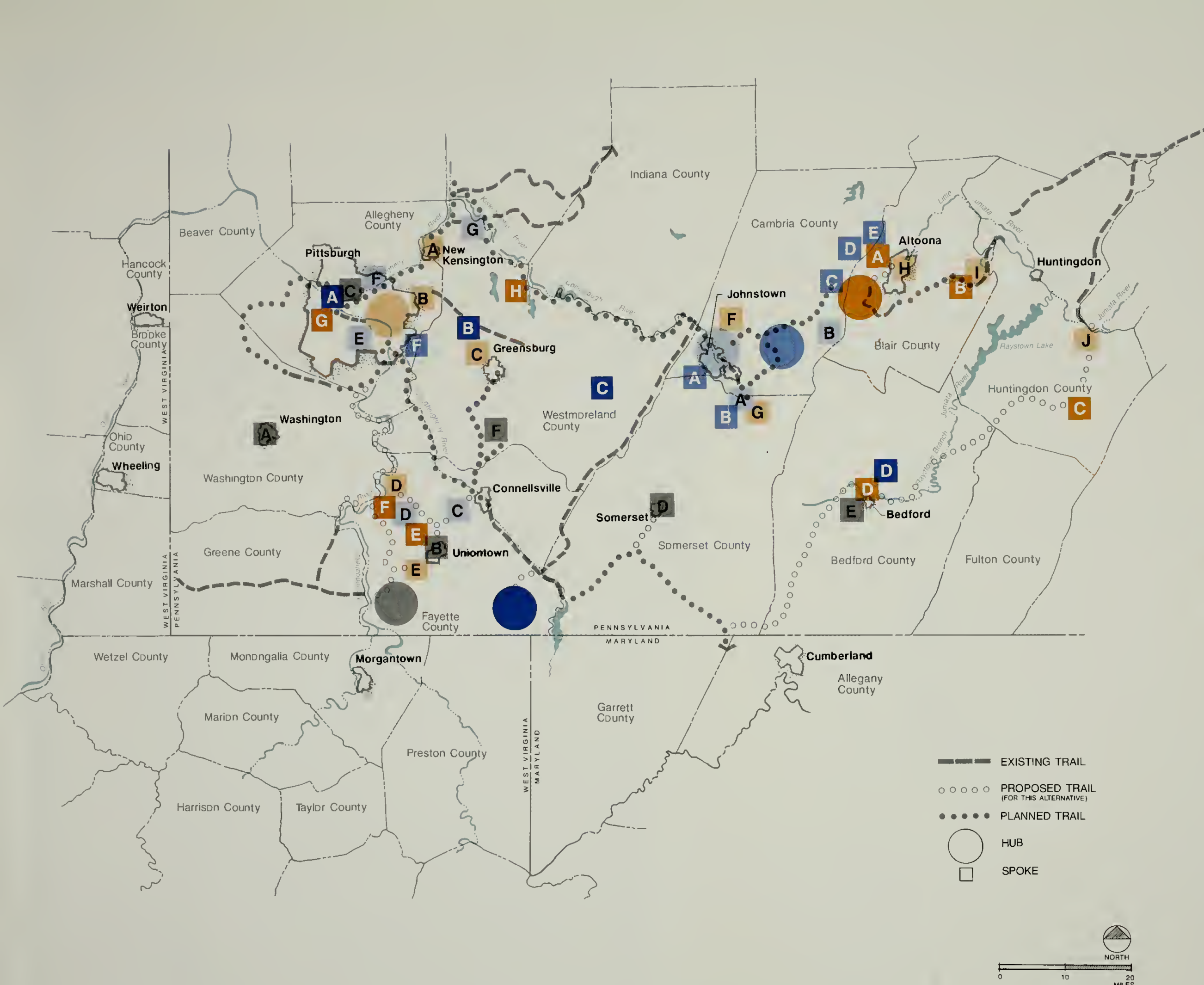


SPOKES: A. JOHNSTOWN FLOOD MUSEUM  
B. EUREKA MINE 40  
C. ALLEGHENY PORTAGE RAILROAD NHS  
D. GALLITZIN TUNNELS  
E. HORSESHOE CURVE NHL  
F. MONONGAHELA VALLEY STEEL MILLS

## ALTERNATIVE 1: BUILDING A WORLD ECONOMIC POWER

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY





- CONFLICT AND CONQUEST**  
HUB: FORT NECESSITY NB

SPOKES: A. FORKS OF THE OHIO NHL (Fort Pitt Museum)  
B. BUSHY RUN NHL  
C. FORT LIGONIER  
D. FORT BEDFORD MUSEUM
- WESTWARD EXPANSION / EARLY SETTLEMENT**  
HUB: FRIENDSHIP HILL NHS

SPOKES: A. DAVID BRADFORD HOUSE  
B. UNIONTOWN DOWNTOWN HISTORIC DISTRICT  
C. FORKS OF THE OHIO NHL (Fort Pitt Museum)  
D. SOMERSET HISTORICAL CENTER  
E. ESPY HOUSE NHL  
F. WEST OVERTON VILLAGE
- TRANSPORTATION REVOLUTION**  
HUB: ALLEGHENY PORTAGE RAILROAD NHS

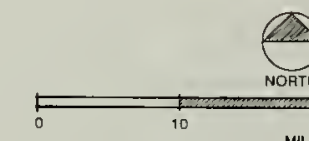
SPOKES: A. HORSESHOE CURVE NHL  
B. MT. ETNA IRON FURNACE COMPLEX  
C. EAST BROAD TOP NHL  
D. BEDFORD HISTORIC DISTRICT  
E. SEARIGHTS TOLLHOUSE NHL  
F. BROWNSVILLE COMMERCIAL AND NORTHSIDE HISTORIC DISTRICTS  
G. FORKS OF THE OHIO NHL (Fort Pitt Museum)  
H. SALTSBURG HISTORIC DISTRICT AND CANAL PARK
- SOCIETY IN AN INDUSTRIAL CULTURE**  
HUB: CAMBRIA CITY HISTORIC DISTRICT

SPOKES: A. WINDBER / SCALP LEVEL HISTORIC DISTRICTS  
B. SOUTH FORK FISHING AND HUNTING CLUB HISTORIC DISTRICT  
C. LEISENRING NO. 1 COMPANY TOWN  
D. ALLISON MINE AND COMPANY TOWNS NOS. 1 AND 2  
E. HOMESTEAD HISTORIC DISTRICT  
F. MILLIONAIRES' ROW  
G. VANDERGRIFT
- INDUSTRIALIZATION / AMERICAN LABOR HISTORY**  
HUB: HOMESTEAD / CARRIE FURNACE

SPOKES: A. ALCOA ALUMINUM RESEARCH LABORATORIES  
B. WESTINGHOUSE ELECTRIC COMPANY  
C. WESTMORELAND GLASS COMPANY  
D. BROWNSVILLE COMMERCIAL AND NORTHSIDE HISTORIC DISTRICTS  
E. SHOAF COKE WORKS  
F. CAMBRIA IRON COMPANY NHL  
G. EUREKA MINE 40  
H. RAILROADERS MEMORIAL MUSEUM  
I. MT. ETNA IRON FURNACE COMPLEX  
J. HARBISON-WALKER REFRACTORIES COMPANY
- INTERACTION BETWEEN PEOPLES AND THE LANDSCAPE**  
HUB: JOHNSTOWN FLOOD NM

SPOKES: A. JOHNSTOWN FLOOD MUSEUM  
B. EUREKA MINE 40  
C. ALLEGHENY PORTAGE RAILROAD NHS  
D. GALLITZIN TUNNELS  
E. HORSESHOE CURVE NHL  
F. MONONGAHELA VALLEY STEEL MILLS

- EXISTING TRAIL
- PROPOSED TRAIL (FOR THIS ALTERNATIVE)
- PLANNED TRAIL
- HUB
- SPOKE



# ALTERNATIVE 1: BUILDING A WORLD ECONOMIC POWER

## WESTERN PENNSYLVANIA REGION: ITS LANDSCAPE, PEOPLE, AND INDUSTRY

**Conflict and Conquest****Hub:** Fort Necessity NB\***Spokes:**

Forks of the Ohio NHL  
(Fort Pitt Museum)\*  
Bushy Run NHL\*  
Fort Ligonier\*  
Fort Bedford Museum\*

**Westward Expansion/Early Settlement****Hub:** Friendship Hill NHS\***Spokes:**

Uniontown Downtown Historic  
District  
David Bradford House NHL\*  
Forks of the Ohio NHL\* (Fort Pitt  
Museum)  
Espy House NHL\*  
Somerset Historical Center\*  
West Overton Village\*

**Transportation Revolution****Hub:** Allegheny Portage Railroad  
NHS\***Spokes:**

East Broad Top NHL;  
Horseshoe Curve NHL\*  
Searights Tollhouse NHL\*  
Saltsburg Historic District and  
Canal Park  
Brownsville Commercial and  
Northside Historic Districts  
Forks of the Ohio NHL\* (Fort  
Pitt Museum)  
Bedford Historic District

**Society in an Industrial Culture****Hub:** Cambria City Historic District**Spokes:**

Millionaires' Row  
South Fork Fishing and Hunting  
Club Historic District  
Allison Mine and Company Towns  
Nos. 1 and 2  
Leisenring No. 1 Company Town  
Homestead Historic District  
Vandergrift; Windber and Scalp  
Level/Eureka Mine 40 Historic  
Districts

**Industrialization****Hub:** Homestead/ Carrie Furnace**Spokes:**

Railroaders Memorial Museum\*  
Shoaf Coke Works  
Mt. Etna Iron Furnace Complex  
Cambria Iron Company NHL  
Alcoa Aluminum Research  
Laboratories  
Westmoreland Glass Company  
Brownsville Commercial and  
Northside Historic Districts  
Westinghouse Electric Company  
Eureka Mine 40  
Harbison-Walker Refractories  
Company

**Interaction Between People and the  
Landscape****Hub:** Johnstown Flood NM\***Spokes:**

Allegheny Portage Railroad NHS\*  
Johnstown Flood Museum\*  
Eureka Mine 40  
Horseshoe Curve NHL\*  
Gallitzin Tunnels  
Monongahela Valley Steel Mills

**Hub Development and Conservation**

Of the six hubs proposed for this alternative, four are currently administered by the National Park Service and have visitor orientation facilities. There are no visitor orientation facilities at the other two hubs. Further study would be required to determine if the existing or proposed visitor use facilities at the four NPS units would be adequate to function as a hub. In some cases the existing facilities/ operations might have to be expanded. Brief descriptions of the hub facilities are described below.

**Conflict and Conquest.** Fort Necessity National Battlefield is administered by the National Park Service. Currently, there is a small visitor center at the national battlefield. A new 9,000-10,000 square-foot interpretive center is proposed to be constructed in 1996. The new facility would be the primary interpretive facility for the national battlefield.



**Westward Expansion/Early Settlement.** Friendship Hill National Historic Site is also administered by the National Park Service. The newly rehabilitated historic Albert Gallatin House provides visitor orientation facilities for the park.

**Transportation Revolution.** Allegheny Portage National Historic Site is another National Park Service facility. A new visitor center complex containing visitor orientation facilities, an amphitheater, and parking facilities was just completed in 1992.

**Society in an Industrial Culture.** Currently, no visitor facilities would be suitable to function as a hub. However the Germania Brewery in the classic ethnic working class neighborhood of Cambria City and the Johnstown Passenger Station have been identified as possible heritage discovery or theme centers as proposed in the *Allegheny Ridge Pennsylvania Heritage State Park Plan*.



Photo courtesy of the Johnstown Area Heritage Association Archives.

Either of these proposed facilities could function as a hub.

Whether the Germania Brewery, the Johnstown Passenger Station, or another existing (yet to be determined), period structure is used for this hub, rehabilitation would be the preferred conservation treatment for a visitor facility. As society in an industrial culture is the emphasis for this hub, conservation through interpretation of the story elements would be integrated with the community's living heritage. This could be achieved through interpretation of both past and present community developments and activities with visitor experiences throughout the community.

**Industrialization/American Labor History.** Homestead/Carrie Furnaces currently has no visitor facilities; however, there are several historic structures that, if adaptively reused, would be suitable for a visitor contact facility. *The Homestead Site Plan Charette* (NPS 1993e) identified the Bost building, big shop, and the Blowing engine house at Carrie Furnaces as suitable structures for visitor center complexes. The big shop is currently being demolished and should no longer be considered as a suitable structure for a visitor center complex.

Rehabilitation would be the most appropriate conservation treatment for the buildings listed above as potential visitor center facilities. Preservation of Carrie Furnace site structures such as the furnaces, powerhouse, and blowing engine house, is also recommended, in addition to the pumphouse and water tower on the Homestead plant site. Conservation of the community's living heritage in the area could be achieved by maintaining and nurturing the community's identity through active involvement between visitors, the facility management, and the community.

**Interaction Between People and the Landscape.** Johnstown Flood National Memorial is another facility administered by the National Park Service. The park includes a new visitor complex that opened in 1989. This complex is the primary visitor orientation facility at the park.



*Photo courtesy of the Johnstown Area Heritage Association Archives.*

Conservation treatments and ongoing maintenance are in place at the four established NPS hub sites listed above. Conservation through interpretation of the story elements would be incorporated into these facilities through added exhibits or media as needed.

### **Spoke Development and Conservation**

Visitor facilities and conservation treatments are in place at several of the spoke resources, as indicated by an asterisk under the "Hub and Spoke Resources" section. In addition, planning studies have occurred or are currently underway for the following spoke resources: East Broad Top, Saltsburg (Canal) Historic District, Mt. Etna Iron Furnace Complex, Cambria Iron Company NHL, Windber and Scalp Level/Eureka Mine 40 Historic Districts, and South Fork Fishing and Hunting Club Historic District. Interpretation would be expanded at spoke resources to include the story elements and to tie the resource to the hub.

For those resources that do not have conservation treatments underway, it is recommended that at a minimum, conservation of resources should be accomplished through documentation/archival measures, and story elements should be interpreted through wayside exhibits. Some of these sites might not be accessible because of potential liabilities. Further conservation activities might include preservation of a portion or all of the onsite structures and rehabilitation of existing onsite structures as ancillary visitor facilities to the hub. Other potential developments might include expanded interpretive activities and linkages to other scenic, recreational, and cultural resources and to existing trail systems. (See appendix I and the accompanying Scenic and Recreational Resources map.)

### **Interpretation and Visitor Experience**

While the region's industrial heritage has given western Pennsylvania its celebrated persona, industry represents only a portion





*Fairview Inn or Three Mile House on Old Frederick Road by Thomas Coke Ruckle, courtesy of Maryland Historical Society, Baltimore.*

of the rich cultural heritage to be found here. In this alternative the visitor would experience the region's diverse heritage by exploring the area in the context of the six broad story elements described under the "Hub Development and Conservation" section. The visitor experience goals for the spoke resources would be as follows.

**Conflict and Conquest.** Visitors would gain an understanding of the strategic importance of the western Pennsylvanian frontier in the struggle for empire between the colonial powers of Great Britain and France. Visitors to the hub site at Fort Necessity would be able to view the fields of the first engagements of this conflict. Interpretive media would explain the political and economic foundations of the conflict and how the events at Fort Necessity triggered a world war. The spoke sites of Fort Ligonier and Bedford would be used to help visitors understand the logistics of conducting major military campaigns in the mountains and forests of western Pennsylvania and the importance of transportation development in this imperial conflict. The forks of the Ohio would provide a graphic illustration of one of the prizes for which these two European powers risked so much. The battlefield at

Bushy Run would be used to illustrate the period's complex political fabric, in which Native Americans, French, and British alternately fought for control of the region and its resources.

The later conflicts of the Whiskey Rebellion and the labor-capital struggles of the 19th century might be interpreted within this story element as well, to determine the historic continuity of conflict over western Pennsylvania's vast resources.

**Westward Expansion/Early Settlement.** As America expanded its frontier westward, settlement patterns in western Pennsylvania were influenced by geography, resource development, and the people who settled there. Visitors would encounter a variety of settlement types and appreciate the forces that helped to define and shape those settlements. The hub site at Friendship Hill National Historic Site would represent the entrepreneurial spirit that responded to the many opportunities in the rapidly growing trans-Appalachian west. Interpretive efforts here would focus on western Pennsylvania's role in trans-Appalachian expansion and Albert Gallatin's vision of laying the foundations for industrial



endeavors in the region to capitalize on American expansion into the Ohio Valley.

The spoke resources at Uniontown, Bedford, Somerset, and Pittsburgh would offer visitors the opportunity to see the variety of communities that developed in this period and how they evolved as western Pennsylvania changed from a frontier to an industrial setting. The David Bradford House and the Espy House are national historic landmarks that take visitors to the Whiskey Rebellion, a conflict that arose in the wake of the flood of American expansion into the West. This brief rebellion tested the new constitutional government's authority over the distant reaches of the West.

**Transportation Revolution.** The topographic relief and geographic resources of the region have created transportation problems and solutions for the region's people. Visitors would have the opportunity to experience both the technological innovations and the variety of transportation systems developed within the region in a period when transportation was growing beyond human and animal power toward mechanization. The hub at Allegheny Portage Railroad National Historic Site preserves the remaining resources of one of the most remarkable technological innovations in antebellum America. The scope of the Portage Railroad would help visitors gain a sense of the potential benefit in establishing a trade link between the East and West. It and the spoke at Horseshoe Curve National Historic Landmark would allow visitors to appreciate the magnitude of the efforts required to surmount the Allegheny Ridge.

The Searights Toll House National Historic Landmark and the town of Brownsville preserve important resources from the heyday of the National Road, the only federally funded and constructed transportation improvement in the United States before the Civil War. Visitors would learn of the impact of this important development on western Pennsylvania. The town of Saltsburg would afford visitors the opportunity to see how the Pennsylvania Main Line Canal spurred community and

commercial development in the region. The town of Bedford would offer a similar opportunity in a community whose earliest roots spring from its role as a regional transportation crossroads. The spoke at East Broad Top would provide visitors an excellent example of how transportation systems evolved to allow exploitation of western Pennsylvania's resources. The Forks of the Ohio National Historic Landmark would give visitors a panoramic image of one of the great gateways to the West and one of the early West's most important transportation centers.

**Society in an Industrial Culture.** Industrial development in the 19th century significantly reshaped the face of American society. New classes emerged, existing ones grew in strength and numbers, and, in many cases, the lines between these groups widened into almost unbridgeable chasms. The fortunes accumulated by industrial capitalists dwarfed any yet seen in the United States. The American middle class prospered and grew in the industrial age, and a permanent American working class often found itself embroiled in conflict with the classes that came increasingly to control the course and pace of American industrialization.

New lifestyles emerged during the early and formative years of American industrialization. Industry produced a vast array of new consumer goods, and greater wealth brought increased leisure time in which the middle and upper classes could indulge in new products and entertainments. The very face of American towns and cities changed in this period, which saw the first wave of suburbanization as the better-off abandoned inner cities for outlying areas made accessible by new transportation technologies.

Undeniably, much of this new luxury was brought at the expense of the working class, whose labor provided many of the comforts of the new industrial era. More often than not, workers could not afford to indulge in the very benefits their work made possible. Only much later did labor win for itself a more equitable share of the fruits of American industry.

The hub site at Cambria City Historic District would provide visitors with the opportunity to experience the flavor of life in a community that grew and evolved with one of the region's most important industrial enterprises. Visitors would gain an appreciation of the intimate relationship between home and the workplace in the industrial era. The spoke site at Homestead would offer another excellent example of this phenomenon.

The spoke sites at Millionaires' Row in Pittsburgh and the former South Fork Fishing and Hunting Club would help visitors understand the enormity of the fortunes accumulated by the captains of industry, (or robber barons, depending upon one's social perspective) and how they disposed of their wealth. The company towns of Allison, Leisenring, and Windber would give visitors a better appreciation of the remarkable degree of control that industry was able to exert upon its workers; how home, to an astounding degree, was merely an extension of work. Vandergrift, a company town planned by the country's foremost landscape architect, Frederick Law Olmstead, would offer the visitor a glimpse at an unusually benign expression of industry's paternalistic attitude toward labor.

#### **Industrialization/American Labor History.**

Although the industrial community of the region has been dominated by the iron and steel industry, the region's industrial heritage contains significant contributions by a diversity of industries. Visitors would experience a range of industrial technologies, their products, and the communities that produced them. The hub site at Homestead/Carrie Furnace allows visitors to experience the scope of large-scale industrialization, the labor struggles that occurred there and that had repercussions throughout the working class, and the distinctive communities that grew up around the area's factories and mills.

The spoke sites at Mt. Etna Iron Furnace and Cambria Iron Company retain the fabric and flavor of the early developmental stages of western Pennsylvania's metals industries, and would help visitors to understand how these industries evolved.

The Harbison Refractory Brick Company would contain resources associated with an industry vital to steel production. Eureka Mine 40 would give visitors an opportunity to grasp the scope of the region's coal mining industry. The Railroaders Memorial Museum would provide visitors with an understanding of the essential role that transportation played in facilitating industrial production. It also would show how railroading was an enormous industrial endeavor in its own right. Other spokes would demonstrate the remarkable diversity of the area's industries. They would include the remaining resources of Alcoa Aluminum Research Laboratories, the Westmoreland Glass Company, and the Westinghouse Electric Company.

**Interaction Between People and the Landscape.** The geographic features and resources of this region have had profound effects on its people and their culture, and the people and their culture have left an indelible signature on the landscape. Visitors would have the opportunity to investigate this relationship of people and place and how each has impacted the other. Interpretation at the hub site of Johnstown Flood National Memorial would provide visitors with a startling and poignant reminder of the potentially catastrophic effects risked when humans radically modify their environment. The spoke site at Johnstown Flood Museum reinforces this message with its interpretation of the flood's devastating impact on the community.

The spoke sites at Allegheny Portage Railroad National Historic Site, Horseshoe Curve National Historic Landmark, and the Gallitzin Tunnels would provide visitors with dramatic evidence of the technological innovations required to adapt transportation to the region's topography. Visitors to Eureka Mine 40 and the steel plants of the Monongahela valley would see and experience graphic evidence of industrialization's often devastating impact on the landscape.

Interpretive media at the hub sites would provide the background and orientation information necessary for visitors to begin

their interaction with the physical resources that support that theme. It would be necessary for visitors to experience several of the spoke sites as well as the thematic hub before they would be able to fully appreciate the significance of that theme to the region.

**Additional Visitor Experiences.** Because of the broad spectrum of cultural heritage addressed by this alternative, potential visitor experiences through interpretive media and hands-on activities are equally broad. The following list are a few examples of additional visitor activities that could be experienced under this alternative.

Visitors could sample colonial frontier life, watch steel being made, tour homes of the wealthy and homes of those that contributed to their wealth, experience the terror of a natural disaster in the making, take a trip on a river boat or train, tour a coal mining operation, or study the diverse architectural styles of the many churches in the region. The variety of experiences that could be facilitated and enhanced by the many hub and spoke heritage resources is extensive.

### Resource Linkages

In addition to the Heritage Route, resources would be linked together by expanding existing major trail systems, such as the Youghiogheny River Trail, the Steel Heritage Trail, and the Laurel Highlands Trail. Implementation of several planned trails, such as the Conemaugh River Greenway, Route of the Flood, Little Conemaugh River Trail, and the New Portage Trail, would also link together key resources. Expansion of the trail systems would also link the cultural resources with several of the major scenic and recreational resources that are shown on the alternative 1 map and include Raccoon Creek, Ohio pyle, Laurel Highlands\*, and Prince Gallitzin state parks and Forbes, Cooper's Rock, and Rothrock state forests. For a comprehensive list of scenic and recreational resources in the vicinity of this alternative's resources, see appendix I and the accompanying Scenic and Recreational

Resources map. (\*Laurel Highlands refers to a number of state parks within the Laurel Highlands Trail vicinity.)

Passenger railroad service is available from Pittsburgh to Johnstown and Altoona and also from Pittsburgh to Connellsville. These cities are either homes to hub sites or are in the general vicinity of the hubs, and the Johnstown Passenger Station is still currently used as the passenger railroad station. (Please see the state parks/forests, trails, rivers, and transportation corridors shown on the Alternative 1 map.)

### ALTERNATIVE 2: INDUSTRY: LABOR, CAPITAL, TECHNOLOGY, AND COMMUNITY

This alternative focuses on bringing visitors into contact with the diverse industrial heritage of the region, specifically through an interpretation of the way in which settlement within the region's two distinct geographic subregions. Visitors will be introduced first to the Allegheny Front and the Valley of the Monongahela River, the dramatic natural features that shaped so much of the region's history. A clearer perception of the power of geography to direct the development of human society will enable visitors to better appreciate why industry in western Pennsylvania in part evolved in response to its physical setting. Finally, visitors will see how transportation linked the two regions with each other and with rapidly growing national markets. In the process, transportation developed into a colossal industry in its own right.

A critical element of the area drained by the Monongahela River and its tributaries is the Connellsville Coke area. As the largest coke-producing area in the world, Connellsville provided the essential fuel for Pittsburgh's gigantic steel-producing facilities. The Monongahela River corridor provided the transportation link between the coke ovens of Connellsville and the blast furnaces of Pittsburgh.



## Hub and Spoke Resources

### Industrialization — Monongahela Valley Region

**Hub:** Homestead/Carrie Furnaces

**Spokes:**

Alcoa Aluminum Research

Laboratories

Westmoreland Glass Company

Westinghouse Electric Company

### Industrialization — Allegheny Ridge Region

**Hub:** Cambria Iron Company NHL

**Spokes:**

Railroaders Memorial Museum\*

Mt. Etna Iron Furnace Complex

Windber and Scalp Level/Eureka

Mine 40 Historic Districts

Harbison-Walker Refractories

Company

### Industrialization — Connellsville Region

**Hub:** Connellsville Area

**Spokes:**

Shoaf Coke Works

Brownsville Commercial and  
Northside Historic Districts

## Hub Development and Conservation

Three hubs are proposed for this alternative. No visitor orientation facilities exist at any of these sites. (See Alternative 2 map for proposed hubs.)

**Homestead/Carrie Furnaces.** See description for hub development and conservation under alternative 1.

**Cambria Iron Company.** At this time there are no visitor orientation facilities at the Cambria Iron Co. site. Although further study would be required to determine the most suitable structures for a visitor complex, the *Cambria Iron Works Study of Alternatives* (NPS 1988a) identifies several nationally significant onsite structures. Of these, rehabilitation for visitor center facilities might be appropriate for the Rolling Mill office building, pattern shop, or



Photo courtesy of Historic American Engineering Record.  
Photo by Martin Stupich.

(although not listed as nationally significant) the machine shop.

The Johnstown Passenger Station has also been identified as a possible theme center as proposed in the *Allegheny Ridge Pennsylvania Heritage State Park Plan*. This proposed facility could also serve as a visitor orientation facility for the Cambria Iron Co. site.

Conservation through preservation treatments might be appropriate for other structures within the Lower Works region, including the remains of the hot blast stoves and engine house, among others. Restoration or at the minimum, preservation, of the blacksmith shop should be considered. Conservation through continued use (as a working mill) of portions of the Cambria Iron Company are recommended. Integration with the community through its active involvement with the historic resources (as well as the working portions of the mill) is recommended as a means of conserving the community's living heritage.

**Coke – Connellsville Area, Pennsylvania.** Currently, there are no established visitor

their interaction with the physical resources that support that theme. It would be necessary for visitors to experience several of the spoke sites as well as the thematic hub before they would be able to fully appreciate the significance of that theme to the region.

**Additional Visitor Experiences.** Because of the broad spectrum of cultural heritage addressed by this alternative, potential visitor experiences through interpretive media and hands-on activities are equally broad. The following list are a few examples of additional visitor activities that could be experienced under this alternative.

Visitors could sample colonial frontier life, watch steel being made, tour homes of the wealthy and homes of those that contributed to their wealth, experience the terror of a natural disaster in the making, take a trip on a river boat or train, tour a coal mining operation, or study the diverse architectural styles of the many churches in the region. The variety of experiences that could be facilitated and enhanced by the many hub and spoke heritage resources is extensive.

### Resource Linkages

In addition to the Heritage Route, resources would be linked together by expanding existing major trail systems, such as the Youghiogheny River Trail, the Steel Heritage Trail, and the Laurel Highlands Trail. Implementation of several planned trails, such as the Conemaugh River Greenway, Route of the Flood, Little Conemaugh River Trail, and the New Portage Trail, would also link together key resources. Expansion of the trail systems would also link the cultural resources with several of the major scenic and recreational resources that are shown on the alternative 1 map and include Raccoon Creek, Ohiopyle, Laurel Highlands\*, and Prince Gallitzin state parks and Forbes, Cooper's Rock, and Rothrock state forests. For a comprehensive list of scenic and recreational resources in the vicinity of this alternative's resources, see appendix I and the accompanying Scenic and Recreational

Resources map. (\*Laurel Highlands refers to a number of state parks within the Laurel Highlands Trail vicinity.)

Passenger railroad service is available from Pittsburgh to Johnstown and Altoona and also from Pittsburgh to Connellsville. These cities are either homes to hub sites or are in the general vicinity of the hubs, and the Johnstown Passenger Station is still currently used as the passenger railroad station. (Please see the state parks/forests, trails, rivers, and transportation corridors shown on the Alternative 1 map.)

### ALTERNATIVE 2: INDUSTRY: LABOR, CAPITAL, TECHNOLOGY, AND COMMUNITY

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## Hub and Spoke Resources

### Industrialization — Monongahela Valley Region

**Hub:** Homestead/Carrie Furnaces

**Spokes:**

Alcoa Aluminum Research  
Laboratories

Westmoreland Glass Company  
Westinghouse Electric Company

### Industrialization — Allegheny Ridge Region

**Hub:** Cambria Iron Company NHL

**Spokes:**

Railroaders Memorial Museum\*  
Mt. Etna Iron Furnace Complex  
Windber and Scalp Level/Eureka  
Mine 40 Historic Districts  
Harbison-Walker Refractories  
Company

### Industrialization — Connellsville Region

**Hub:** Connellsville Area

**Spokes:**

Shoaf Coke Works  
Brownsville Commercial and  
Northside Historic Districts

## Hub Development and Conservation

Three hubs are proposed for this alternative. No visitor orientation facilities exist at any of these sites. (See Alternative 2 map for proposed hubs.)

**Homestead/Carrie Furnaces.** See description for hub development and conservation under alternative 1.

**Cambria Iron Company.** At this time there are no visitor orientation facilities at the Cambria Iron Co. site. Although further study would be required to determine the most suitable structures for a visitor complex, the *Cambria Iron Works Study of Alternatives* (NPS 1988a) identifies several nationally significant onsite structures. Of these, rehabilitation for visitor center facilities might be appropriate for the Rolling Mill office building, pattern shop, or



Photo courtesy of Historic American Engineering Record.  
Photo by Martin Stupich.

(although not listed as nationally significant) the machine shop.

The Johnstown Passenger Station has also been identified as a possible theme center as proposed in the *Allegheny Ridge Pennsylvania Heritage State Park Plan*. This proposed facility could also serve as a visitor orientation facility for the Cambria Iron Co. site.

Conservation through preservation treatments might be appropriate for other structures within the Lower Works region, including the remains of the hot blast stoves and engine house, among others. Restoration or at the minimum, preservation, of the blacksmith shop should be considered. Conservation through continued use (as a working mill) of portions of the Cambria Iron Company are recommended. Integration with the community through its active involvement with the historic resources (as well as the working portions of the mill) is recommended as a means of conserving the community's living heritage.

**Coke — Connellsville Area, Pennsylvania.** Currently, there are no established visitor



orientation facilities suitable for a hub in the Connellsville area, and a study has not been conducted yet to determine specific properties that would be available and suitable. Because this area is vast, it is anticipated that several historic structures would be suitable for rehabilitation.

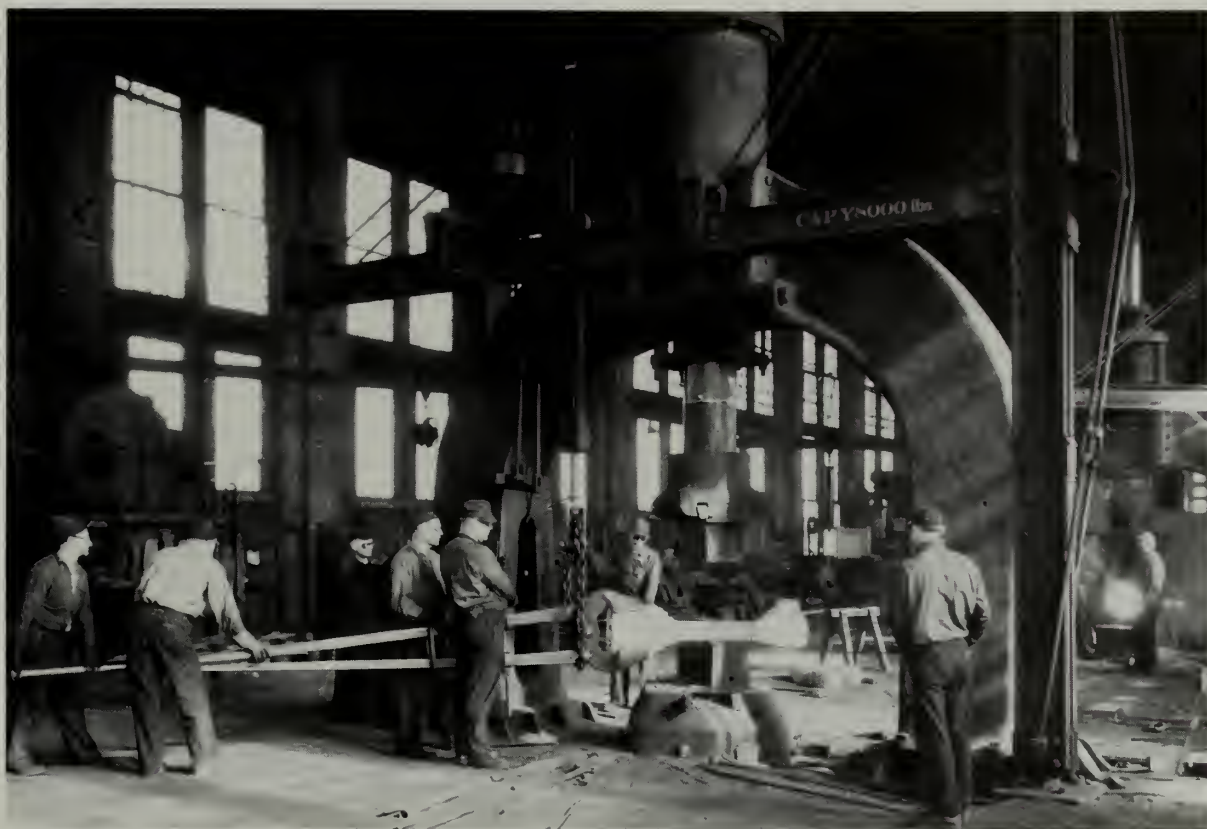
Conservation of the living heritage in the Connellsville area and surrounding communities could be achieved through participation between community members, visitors, and the hub facility management.

### **Spoke Development and Conservation**

Although the Railroaders Memorial Museum is the only resource with a visitor facility, some other resources — Windber and Scalp Level/Eureka Mine 40 Historic Districts and Mt. Etna — have planning studies underway for conservation and development, pending funding. The Railroaders Memorial Museum is also in the process of expanding into the master

mechanic's building that is adjacent to its current facility. It is recommended that interpretation be expanded to incorporate the story elements and tie the resource to the hub.

For those resources that do not have conservation treatments underway, it is recommended that at a minimum, conservation should be accomplished through documentation/ archival measures, and story elements should be interpreted through wayside exhibits and publications. Some of these sites might not be accessible because of potential liabilities. Further conservation activities might include preservation of a portion or all of the onsite structures and rehabilitation of existing onsite structures as ancillary visitor facilities to the hub. Other potential developments might include expanded interpretive activities and linkages to other scenic, recreational, and cultural resources and to existing trail systems.



*Photo courtesy of the Railroaders Memorial Museum, Altoona, Pa.*

## Interpretation and Visitor Experience

This alternative focuses on bringing visitors into contact with diverse industrial heritage in the region. Visitors would already be familiar with most of the product produced, but few would now the story behind the scenes. Why did these industries develop here? How did the region's resources influence the evolution of one of the most dynamic industrial areas in the country? Who were the people who built these industries? Who made the iron, steel, aluminum, and glass? While visitors were experiencing the answers to these and other questions, they would gain an appreciation for the way in which the characteristics of a specific environment shapes the course of human economic and industrial development, even development on the magnitude of that which occurred in western Pennsylvania. Visitors would then gain new insights on the enormous impact that the western Pennsylvania region had on the industrial economy of the United States.

Two of the hub sites in this alternative would be important iron and steel industry sites with nearby resources that would give

the visitors opportunities to explore many facets of this industry. The third hub, in the Connellsville area, would focus on the production of coke, the essential fuel of the steel industry. The third hub at Connellsville would help visitors better understand the complex industrial relationships of the Monongahela River corridor. A specific site has not yet been selected for the Connellsville hub.

Positive initial experiences at these hubs will stimulate the visitor's curiosity about the region's other industries. Because of the complexity of the other industries, interpretation at the hubs will be limited to orientation material and "teaser" exhibits designed to provoke visitor interest.

The burden of telling the other industrial stories would fall on the spoke sites, where those industries operated. Although visitors would gain some appreciation of such information as the size, scale, and community environment of these industries by being at the spoke site, interpretive media and program development would provide the opportunity to fully appreciate that industry.

Each of these industries has its own industrial process, technological innovation, labor story, and often community structure. The diverse community development of western Pennsylvania's two sub-regions will be explored in detail under this alternative. Visitors will gain a clearer understanding of the distinctive ethnic qualities of the myriad industrial communities along the Allegheny Front and in the Monongahela Valley. Under this alternative, visitors would have the opportunity to experience these industries from raw material to finished product. Examples of potential visitor activities are tours of the industrial site and process led by people who work or worked there, audiovisual programs that show the industrial process when safety or other factors prevent direct observation, tours of industrial communities to experience the human side of the industry, and audio tape tours of sites that are safe for visitors to experience on their own.



*Photo courtesy of the Pennsylvania State Archives, Harrisburg, Pa.*



### INDUSTRIALIZATION – MONONGAHELA VALLEY REGION

HUB: HOMESTEAD / CARRIE FURNACES



SPOKES: A. ALCOA ALUMINUM RESEARCH LABORATORIES  
B. WESTINGHOUSE ELECTRIC COMPANY  
C. WESTMORELAND GLASS COMPANY



### INDUSTRIALIZATION — ALLEGHENY RIDGE REGION

HUB: CAMBRIA IRON COMPANY NHL



SPOKES: A. EUREKA MINE 40  
B. RAILROADERS MEMORIAL MUSEUM  
C. MT. ETNA IRON FURNACE COMPLEX  
D. HARBISON-WALKER REFRACTORIES COMPANY



### INDUSTRIALIZATION – CONNELLSVILLE REGION

HUB: CONNELLSVILLE AREA

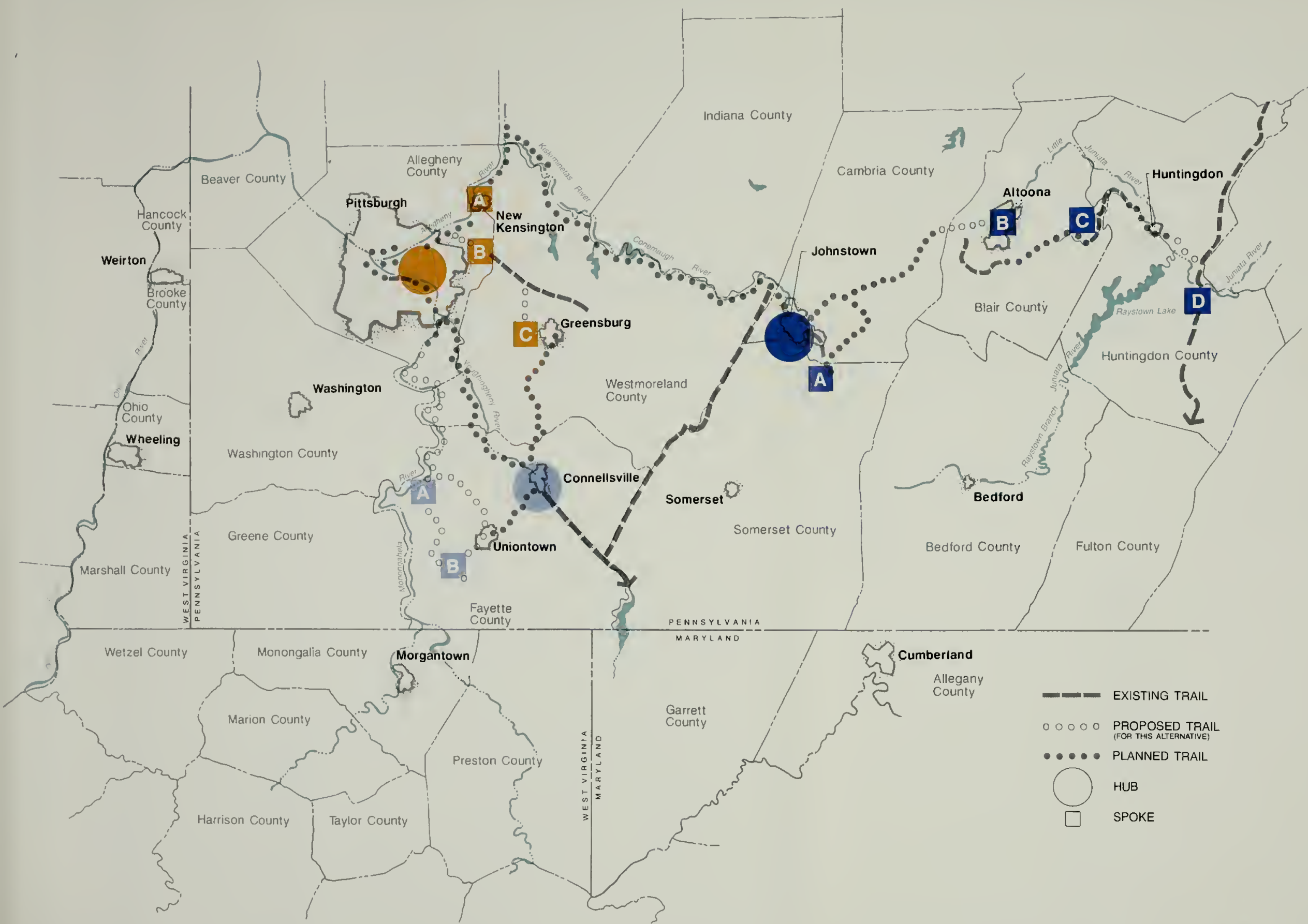


SPOKES: A. BROWNSVILLE COMMERCIAL AND NORTHSIDE HISTORIC DISTRICTS  
B. SHOAF COKE WORKS

## ALTERNATIVE 2: INDUSTRY: LABOR, CAPITAL, TECHNOLOGY AND COMMUNITY

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY





- INDUSTRIALIZATION – MONONGAHELA VALLEY REGION**  
HUB: HOMESTEAD / CARRIE FURNACES  
SPOKES: A. ALCOA ALUMINUM RESEARCH LABORATORIES  
B. WESTINGHOUSE ELECTRIC COMPANY  
C. WESTMORELAND GLASS COMPANY
- INDUSTRIALIZATION – ALLEGHENY RIDGE REGION**  
HUB: CAMBRIA IRON COMPANY NHL  
SPOKES: A. EUREKA MINE 40  
B. RAILROADERS MEMORIAL MUSEUM  
C. MT. ETNA IRON FURNACE COMPLEX  
D. HARBISON-WALKER REFRACTORIES COMPANY
- INDUSTRIALIZATION – CONNELLSVILLE REGION**  
HUB: CONNELLSVILLE AREA  
SPOKES: A. BROWNSVILLE COMMERCIAL AND NORTHSIDE HISTORIC DISTRICTS  
B. SHOAF COKE WORKS

**ALTERNATIVE 2:  
INDUSTRY: LABOR,  
CAPITAL,  
TECHNOLOGY  
AND COMMUNITY**

**WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY**

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE  
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## Resource Linkages

Under this alternative more than half the resources are along the Youghiogheny, Monongahela, Allegheny, Kiskiminetas/Conemaugh, and Juniata rivers. Because all but the Juniata River are linked to one another, they could be used as a means to travel by boat from one site to another.

In addition to the rivers there would be opportunities for linking resources together by extending or using existing and planned trail systems such as the Youghiogheny River Trail, the Steel Heritage Trail, the Conemaugh River Greenway, Juniata River Corridor Lower Trail, the New Portage Trail, and the Laurel Highlands Trail.

There are several major state parks and forests in the vicinity of this alternative's resources that could be easily accessed by automobile or proposed trails, including Ohiopyle, Raccoon Creek, and Laurel Highlands state parks and Forbes, Gallitzin, and Rothrock state forests. For a comprehensive list of scenic and recreational resources in the vicinity of this alternative's resources, see appendix I and the accompanying Scenic and Recreational Resources map.

Passenger railroad service is available from Pittsburgh to Johnstown and Altoona and from Pittsburgh to Connellsville. Cambria Iron Works is within walking distance to the Johnstown Passenger (railroad) station, and Homestead and the Railroaders Memorial Museum are near Pittsburgh and Altoona passenger railroad stations. (See the state parks/forests, trails, rivers, and transportation corridors shown on the Alternative 2 map.)

## ALTERNATIVE 3: THE EVOLUTION OF IRON AND STEEL

This alternative would allow visitors to experience the resources and stories associated with the single most significant chapter in the region's history; its role in making the United States the world's preeminent producer of iron and steel. Western Pennsylvania's iron and steel manufacturing played an essential part in the rapid evolution of American industry from cottage and craft-based enterprises to gigantic, capital and labor-intensive ventures that literally changed the face of the nation. This alternative incorporates resources that illustrate every significant developmental stage of the iron and steel industry in western Pennsylvania. These include small charcoal-fired iron furnaces, iron plantations, one of the earliest efforts at large-scale production, and the remaining resources of what were once the largest steel plants in the country. This alternative also includes interpretation of the story of coke, the essential fuel of steel production, and one of the most significant facets of the region's industrial story.



*Photo courtesy of Steel Industry Heritage Corporation, from the collection of Pittsburgh History and Landmarks Foundation.*





## Hub and Spoke Resources

### Early Iron

**Hub:** Mt. Etna Iron Furnace Complex

**Spokes:**

- Isaac Meason House NHL\*
- Allegheny Furnace\*
- Eliza Furnace\*
- Greenwood Furnace\*
- Huntingdon Furnace

### Transition from Iron to Steel

**Hub:** Cambria Iron Company NHL

**Spokes:**

- Railroaders Memorial Museum\*

### Coke

**Hub:** Connellsville area

**Spokes:**

- Allison Mine and Company Towns  
Nos. 1 and 2
- Leisenring No. 1 Company Town
- Shoaf Coke Works
- Scottdale Offices and Alverton Coke  
Works
- Dawson
- Trauger and Hecla no. 2 Mine and  
Coke Works

### Big Steel

**Hub:** Homestead/Carrie Furnaces

**Spokes:**

- Monessen Works
- Clairton Works
- Edgar Thomson Plant/Irvin Plant
- Weirton Steel Corporation
- Allegheny Ludlum Corporation,  
Vandergrift Plant and Town
- Wheeling Heritage Project Area

## Hub Development and Conservation

The four hubs proposed under this alternative have no visitor orientation facilities. However, some preliminary studies have been conducted to determine which structures might be suitable for visitor orientation facilities. (See Alternative 3 map for proposed hubs.)

### Early Iron — Mt. Etna Iron Furnace

**Complex.** No visitor orientation facilities are at the site; however, some efforts have been made to restore the furnace. Although further study would be required to determine the most suitable structures for visitor center use, the *Study of Alternatives: Mt. Etna Iron Furnace Complex* (NPS 1990f) identifies several significant onsite structures. Of these, rehabilitation of the bank barn, store, tenant house, or the iron master's house might be appropriate for a visitor center facility. Preservation is recommended for other onsite structures, such as any of the above-named structures that are not rehabilitated and the furnace.

### Transition from Iron to Steel — Cambria Iron Company, Johnstown, Pennsylvania.

Development and conservation of this hub would be the same as described under alternative 2.

### Coke — Connellsville Area, Pennsylvania.

Development and conservation of this hub would be the same as described under alternative 2.



Photo courtesy of Steel Industry Heritage Corporation, from the collection of the Connellsville Historical Society.





### EARLY IRON

HUB: MT. ETNA IRON FURNACE COMPLEX



SPOKES: A. ISAAC MEASON HOUSE NHL  
B. ELIZA FURNACE  
C. ALLEGHENY FURNACE  
D. HUNTINGDON FURNACE  
E. GREENWOOD FURNACE



### TRANSITION FROM IRON TO STEEL

HUB: CAMBRIA IRON COMPANY NHL

SPOKES: A. RAILROADERS MEMORIAL MUSEUM



### COKE

HUB: CONNELLSVILLE AREA

SPOKES: A. ALLISON MINE AND COMPANY TOWNS NOS. 1 AND 2  
B. LEISENRING NO.1 COMPANY TOWN  
C. SHOAF COKE WORKS  
D. DAWSON  
E. SCOTSDALE OFFICES AND ALVERTON COKE WORKS  
F. TRAUGER AND HECLA NO. 2 MINE AND COKE WORKS



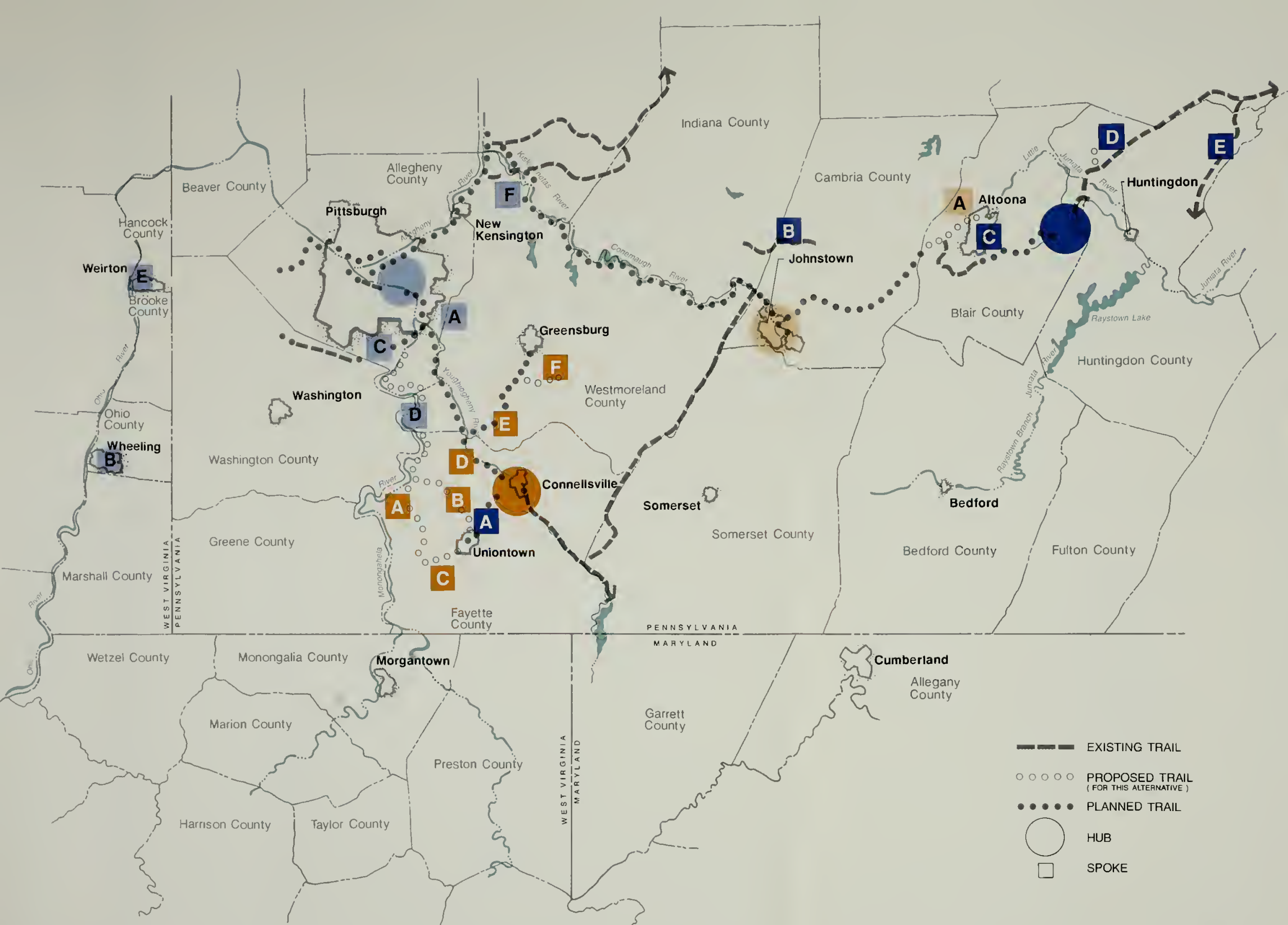
### BIG STEEL

HUB: HOMESTEAD / CARRIE FURNACES

SPOKES: A. EDGAR THOMSON PLANT / IRVIN PLANT  
B. WHEELING HERITAGE AREA  
C. CLAIRTON WORKS  
D. MONESSEN WORKS  
E. WEIRTON STEEL CORPORATION  
F. ALLEGHENY LUDLUM CORPORATION

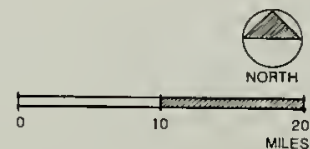
## ALTERNATIVE 3: EVOLUTION OF IRON AND STEEL

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY



- EARLY IRON**  
HUB: MT. ETNA IRON FURNACE COMPLEX  
SPOKES: A. ISAAC MEASON HOUSE NHL  
B. ELIZA FURNACE  
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HUB: CAMBRIA IRON COMPANY NHL  
SPOKES: A. RAILROADERS MEMORIAL MUSEUM
- COKE**  
HUB: CONNELLSVILLE AREA  
SPOKES: A. ALLISON MINE AND COMPANY TOWNS NOS. 1 AND 2  
B. LEISENRING NO.1 COMPANY TOWN  
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- BIG STEEL**  
HUB: HOMESTEAD / CARRIE FURNACES  
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B. WHEELING HERITAGE AREA  
C. CLAIRTON WORKS  
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E. WEIRTON STEEL CORPORATION  
F. ALLEGHENY LUDLUM CORPORATION

- EXISTING TRAIL  
o o o o o PROPOSED TRAIL  
( FOR THIS ALTERNATIVE )  
• • • • • PLANNED TRAIL  
○ HUB  
□ SPOKE



## ALTERNATIVE 3: EVOLUTION OF IRON AND STEEL

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

**Big Steel — Homestead/Carrie Furnaces, Homestead, Pennsylvania.** Hub development and conservation would be the same as described under alternative 1.

### **Spoke Development and Conservation**

Conservation treatments are underway at several of the spoke resources, as indicated by an asterisk in the resource list above; not all contain visitor facilities but continue to be maintained by established entities. It is recommended that interpretive activities be expanded to include the story elements and to tie the resources to the hub.

For those resources that do not have conservation treatments underway, it is recommended that at a minimum, conservation of resources should be accomplished through documentation/archival measures, and story elements should be interpreted through wayside exhibits and publications. Some of these sites might not be accessible because of potential liabilities. Further conservation activities might include preservation of a portion or all of the onsite structures and rehabilitation of existing onsite structures such as ancillary visitor facilities to the hub. Other potential developments might include expanded interpretive activities and linkages to other scenic, recreational, and cultural resources and to existing trail systems.

### **Interpretation and Visitor Experience**

The primary focus of this alternative would be the story of the evolution of the iron and steel industries within the region. Western Pennsylvania was the nation's leader in iron and steel production in the latter half of the 19th and the early 20th centuries. An understanding of the integration of iron and steel, the coal and coke industries, and the region's transportation network is essential to an appreciation of the complex interrelationships of industrialization in western Pennsylvania.

This alternative would give visitors insights into this process by exploring the industry's technological innovations, labor history, community development, its linkage to the transportation industry, the corporate structure of big steel, and its economic importance to the region and nation. Four hub sites and their respective spoke resources would tell a specific part of the story of the evolution of iron and steel.

Steel and its related industries have dominated the industrial development of the region, and under this alternative visitors would get an intimate view of how this industry developed — the technological innovations, labor history, community development, connections to the transportation industry, corporate structure of big steel, and economic importance to the region and nation. Four hub sites and their respective spoke resources would tell a specific part of the evolution of steel story.

**Early Iron:** Visitors would experience early iron furnaces, their charcoal furnace technology, and their associated communities.

**Transition from Iron to Steel:** Visitors would be introduced to integrated iron and steel production, technological innovations, and associated industrial community life.

**Coke:** Visitors would be introduced to the technologies that turned coal into coke, coke's role in steel production, and life in coal and coke communities.

**Big Steel:** Visitors would have the opportunity to learn about modern steel production: the technology, corporate structures, labor struggles, associated communities, and the environmental and economic impacts on the region and the United States.

At each of these hubs, visitors would learn about the incredible diversity of the many industrial communities that sprang up in western Pennsylvania. They would gain an appreciation of the social and ethnic structures of small iron plantations like Mount Etna, of large steel cities like Pittsburgh and Johnstown, of Altoona, the



city built by a railroad, and of coke company towns like Allison. An exposure to these communities would give visitors a better understanding of the people of western Pennsylvania.

Under this alternative, each hub would be at a resource that in and of itself would tell its designated segment of the "Evolution of Steel" story, but spoke sites would reinforce the insights gained at the hub, fill in transitional gaps, and might offer significant visitor experiences unavailable at hub sites.

#### **Additional Interpretive Experiences.**

Examples of some of the potential interpretive experiences under this alternative would be tours of an operating steel mill (if visitor safety could be ensured), demonstration of beehive cokemaking, walking tours of communities to observe the ethnic diversity evident in their churches, dramatization of the Homestead Steel Strike of 1892, a film showing life in the mill and mill community from the laborer's point of view, and riverboat tours of the steel mills along the Monongahela River.

#### **Resource Linkages**

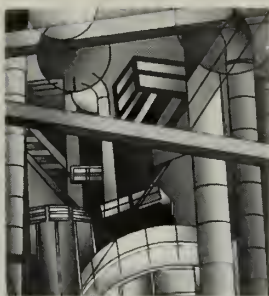
There would be opportunities for linking resources together by extending existing

major trail systems, such as the Youghiogheny River Trail, the Mon Valley Heritage Trail, Juniata River Corridor Lower Trail, and the Laurel Highlands Hiking Trail. In addition, a number of the sites could be linked by boat travel on some of the major regional rivers, including the Monongahela, Youghiogheny, Allegheny, Kiskiminetas/Conemaugh, and Juniata rivers.

Scenic and recreational resources would be near the resources described under this alternative. They could be easily accessed via automobile and, in some cases, by existing or proposed trails or rivers. Several major state parks and forests in the vicinity include Ohiopyle, Raccoon Creek, and Laurel Highlands state parks and Forbes and Rothrock state forests. For a comprehensive list of additional scenic and recreational resources that are in the vicinity of this alternative's hub and spoke resources, see appendix I and the accompanying Scenic and Recreational Resources map.

Three of the four hub sites could be linked by passenger railroad — Connellsville to Pittsburgh and Pittsburgh to Johnstown.

(See the state parks/forests, trails, rivers, and transportation corridors shown on the Alternative 3 map.)



## IMPACT ASSESSMENT

The potential impacts to cultural and natural resources, the socioeconomic environment, and visitor experience that would result from implementation of any of the alternatives are presented below.

Impacts associated with alternative 1 are presented in full. Discussions of impacts of alternatives 2 and 3 are confined to impacts that differ appreciably from those presented under alternative 1.

Because of the regional, conceptual nature of this study, impacts are addressed from a broad perspective. Site-specific conditions such as the presence of threatened or endangered species, wetlands, or archeological resources would be considered during subsequent planning and design efforts.

### IMPACTS OF ALTERNATIVE 1

#### Impacts on Cultural Resources

With continued threats to the region's resources, a unified program of cultural resource conservation would be essential to ensure the long-term preservation of the region's historic character. In general, implementation of this alternative would benefit cultural resources through additional resource protection, documentation, rehabilitation, and interpretation. The alternative would also provide opportunities for conservation of industrial resources and resources associated with other story elements.

The rehabilitation of period structures at Cambria City and Homestead would protect key portions of the structures from further deterioration. Although resource conservation and maintenance programs exist at the other four hubs, interpretation of the story elements at these sites could

foster an increased awareness and appreciation of the region's heritage, potentially motivating or supporting resource conservation elsewhere.

Additional resource benefits might also occur at those spoke sites that have no conservation efforts underway. Documentation, interpretation, and potential rehabilitation of structures would benefit resources (many of which would be threatened) either through direct conservation or through encouragement of comparable efforts elsewhere. Although greater public attention may increase the incidence of vandalism and artifact collecting at these resources, the potential risk is far outweighed by the benefits of conserving neglected and deteriorating resources.

#### Impacts on Natural Resources

Adverse impacts to biological resources would be minimal — there would be little new construction, disturbance would be limited, resource sites would be widely distributed, and many sites are already disturbed. In most situations, rehabilitation of historic structures at hub or spoke sites would primarily affect disturbed vegetation types and habitats. Installation of wayside exhibits, other interpretive media, parking areas, and trails would result in short-term, localized disturbance to wildlife during construction. However, long-term loss of vegetation and wildlife habitat would be dispersed and very limited.

Visitors would have relatively minor effects on vegetation and wildlife. Most hub and spoke resources are situated in urban or developed areas containing disturbed vegetation types and poor quality wildlife habitat. Expanded visitation at NPS hub

sites such as Allegheny Portage Railroad National Historic Site and Friendship Hill National Historic Site would have minimal effects on natural resources, because these resources already have facilities to accommodate visitors. However, pressures from increased visitation at these sites could ultimately trigger the need for installation of more visitor facilities that might adversely affect biological resources. Additional traffic on rural roads might also cause increased animal-vehicle collisions.

Temporary degradation of air quality would occur during construction activities from increases in dust and construction vehicle emissions. Over the long-term, pollutant concentrations from vehicle emissions might escalate because of increased travel.

Construction in the vicinity of streams and rivers might temporarily increase sediment loads, and runoff from new parking areas might contribute additional vehicle-related pollutants to nearby streams. However, development and rehabilitation actions would be conducted in compliance with state and federal regulations and standards. Long-term effects on water quality from these sources would likely be minimal.

Beneficial impacts would include some level of protection for those natural resources that are associated with cultural resources proposed for protection.

Implementation of sustainable design methods would reduce adverse impacts of facility construction and in some cases lead to beneficial impacts to some systems. These methods would include cleanup and restoration of natural resources, proper disposal of onsite hazardous materials, and use of nonhazardous materials in facility design and construction. Cleanup activities would not only provide for visitor and employee safety but would potentially lead to removal of contaminants in soils, improvement of local surface and groundwater quality, and improvement of conditions for vegetation and wildlife.

## Impacts on the Socioeconomic Environment

Implementation of this alternative would increase local and regional tourism, especially in the vicinity of the hubs. Associated increases in local retail sales and expansion of the service sector could be expected along with increased tax revenues for local and state governments. Additional employment opportunities would also be generated. With six interrelated hubs distributed throughout the study area, the effects would likely be felt at some level throughout the region. However, this alternative would particularly affect the Homestead and Cambria City/Johnstown communities, where visitation and tourism would help enhance the economic diversity, vitality, and spirit of the communities.

Increased visitation would create additional automobile traffic on rural and urban roads and highways. Access to some sites is already difficult because of urban congestion, remoteness, or reliance on narrow, two-lane roads. Residents and visitors could experience traffic delays in congested areas near visitor destinations. Ultimately, there might be a need to increase the capacity of some roads, particularly in rural areas, to allow safe and efficient access to resources and visitor facilities. Additional demands for municipal services such as water supply, sewage treatment, street maintenance, and law enforcement, might also occur in some communities. If transportation and other infrastructure improvements are needed, local and state tax revenues from increased tourism should compensate for a portion of the costs.

This alternative would require upgraded parking facilities to meet the demand of increased visitation. Although adequate parking is available at some hub sites that are currently visitor destinations, parking requirements would need to be assessed in future site-specific plans and designs. Parking needs at spoke sites would be commensurate with the level and type of interpretation and development implemented by local communities and groups.



Increased visitation at existing NPS hub sites such as Johnstown Flood National Memorial and Fort Necessity National Battlefield would place additional demands on park staff, infrastructure, and interpretive programs and facilities. The ability of NPS units to accommodate additional visitors would depend on the condition and extent of existing facilities and future NPS funding.

Expanded tourism would likely create a need for more overnight accommodations and restaurants, particularly in rural areas near spoke sites. Sensitive planning would be necessary to ensure that siting of these additional facilities does not degrade the cultural, scenic, or recreational resources that are key to the region's character.

Recreational opportunities for residents and visitors would be increased as new trails are installed to link resources with existing trails, parks, and waterways. This would provide interpretive linkages with other scenic, cultural, and recreational resources. In general, enhancing residents' understanding and appreciation for their cultural, scenic, and recreational resources would increase community pride and promote the recognition and cultivation of their heritage.

Although a number of hub and spoke sites already function as visitor destinations, residents in the vicinity of other resource sites might experience some disruption to their daily lifestyle from the introduction of more visitors to the area. In addition to increased traffic congestion addressed above, effects might include general invasion of privacy, increased noise, and potential trespass by visitors. Sensitivity to these intrusions would likely be greater in rural areas, where noise and human activity is typically less. However, visitation would be dispersed among a number of resource sites, reducing the impact of noise and activity in any one area. Site planning and design that is sensitive to local lifestyle and property owner issues could reduce the potential for major impacts to residents.

## Impacts on Visitor Experience

This alternative would provide visitors with the most comprehensive interpretation of the region's history. The resources would reflect story elements that span not only the period of industrialization but the region's history from Native American settlement to the post-industrial age. Visitors would be provided the opportunity to understand and appreciate interrelationships between the region's history and its natural resources that is currently unavailable and unparalleled in the other alternatives.

Several story elements are interpreted exclusively under this alternative, including Conflict and Conquest; Westward Expansion/Early Settlement; and Interaction Between People and the Landscape. This alternative also includes all resources proposed under alternative 2; therefore, visitors would have the opportunity to visit and experience the entire story of industrialization, as well as the additional stories.

The distribution of visitor centers at the six hubs would provide ready access to interpretive and orientation information from points throughout the region. Consequently, more visitors would have the opportunity to obtain information and orientation services about related stories of the region than with the other alternatives. In addition, hands-on experiences associated with hub resources would be available at all six hubs.

As discussed under natural resources, introduction of visitors to some resource sites would require hazardous materials investigations and/or cleanup activities to ensure visitor safety and comfort. Appropriate studies and remediation activities would likely be conducted as part of future site-specific planning and design.

## **IMPACTS OF ALTERNATIVE 2**

### **Impacts on Cultural Resources**

Impacts to cultural resources would be similar to those described for alternative 1. However, the potential benefits associated with resource conservation would focus exclusively on industrial and related resources. Major benefits of preservation or rehabilitation would occur at two hubs — Homestead and Cambria Iron Company Lower Works. Continued use of the Cambria Iron Works as a working mill would also be a favorable element in the effort to conserve key portions of the lower works. Conservation of resources at both sites would be critical because of ongoing threats from redevelopment.

Formal conservation and interpretation efforts do not exist at most of the spoke resources and many are threatened. Therefore, this alternative would provide an opportunity for the comprehensive conservation and interpretation of many of the key industrial resources in the region.

### **Impacts on Natural Resources**

Impacts to natural resources would be similar to those described for alternative 1. Because the two hub resources are in urban areas and the natural resources have been previously disturbed, adverse effects to biological resources from development or visitor activities would be negligible. Biological resources at spoke sites are also limited and quality is poor. Therefore, no appreciable adverse effects to vegetation or wildlife would occur.

Potential impacts to air and water quality would be similar to those described for alternative 1. However, more than half of the resources are along major rivers. Consequently, special care should be taken during future planning and design phases to minimize the potential for water quality impacts during construction and facility operation.

The effects of hazardous materials cleanup would be the same as described under alternative 1.

### **Impacts on the Socioeconomic Environment**

Implementation of alternative 2 would increase local and regional tourism. However, the potential impacts described under alternative 1 would be distributed among fewer resource sites. As with alternative 1, the Homestead and Johnstown communities would especially benefit from the economic stimulation provided by tourism.

### **Impacts on Visitor Experience**

Alternative 2 would provide diverse experiences that focus visitor attention on the importance and magnitude of industry in the region. Visitors would learn of the key role the region played in the nation's evolution into an industrial power. However, the opportunity would not be available for visitors to learn about the nonindustrial themes included under alternative 1, except for opportunities offered at current existing facilities.

This alternative would have the fewest hub facilities of any alternative. Visitors would be limited to accessing two major interpretive centers at the hub facilities of Homestead and Johnstown. Spoke resources would be well-distributed for visitor access in both the Pittsburgh and Allegheny Ridge areas.

## **IMPACTS OF ALTERNATIVE 3**

### **Impacts on Cultural Resources**

Impacts to cultural resources would be similar to those described for alternative 2. However, resource conservation efforts and associated benefits would focus exclusively on iron and steel and related resources. Major benefits of preservation or rehabilitation would occur at Mt. Etna, Cambria Iron Company, Connellsville, and

Homestead hubs. Resource conservation would protect these resources from ongoing threats and deterioration and provide indirect benefits from interpretation and education.

Formal conservation and interpretive efforts do not exist at most of the spoke resources, particularly those associated with the coking industry or big steel. Almost without exception, these resources are threatened by redevelopment, modernization, conversion, and deterioration from the elements. This alternative presents an opportunity for comprehensive conservation and interpretation of some of the key resources associated with the region's most important and visible industry — iron and steel.

### **Impacts on Natural Resources**

Impacts to natural resources would be similar to those described for alternative 1. Development or visitor activities at Cambria Iron Works, Homestead, and associated spoke resources would have negligible effects on biological resources because of their disturbed nature and urban locations. However, natural resources are a more important component of the visual and cultural landscape at other more rural resource sites, including Mt. Etna, the Connellsville area, and associated spoke resources. Site planning for future development should ensure the protection of natural resources during construction and operation. Protection of cultural resources would likely provide some level of long-term protection for associated natural resources.

Potential impacts to air and water quality associated with this alternative would be similar to those described for alternative 1.

As with alternative 2, the potential presence of hazardous materials is an especially prominent consideration in making industrial resources accessible to visitors. Cleanup measures could result in long-term benefits from improved air quality, water quality, and living conditions for all biota.

### **Impacts on the Socioeconomic Environment**

Similar to the other alternatives, implementation of alternative 3 would increase local and regional tourism. The potential impacts described under alternative 1 would be distributed among fewer resource sites. Potential benefits of the economic stimulation generated by tourism would be centered at the Mt. Etna, Connellsville, Homestead, and Johnstown hubs.

### **Impacts on Visitor Experience**

Visitor experiences under alternative 3 would focus specifically on the evolution of iron and steel in the region. Visitors would learn of the importance of the iron and steel industry in our nation's development and the various stages of development from early iron to the coking industry to big steel. Interpretation would not specifically address other industries as included in alternative 2, nor the nonindustrial themes included under alternative 1.

Four major interpretive centers at the hubs would offer information, orientation, and interpretation. Spoke resources would provide a range of resource experiences throughout the region that relate to various phases of the industry's development over the last 200 years.





## SUITABILITY AND FEASIBILITY

### SUITABILITY

To be suitable for inclusion in the national park system, an area must represent a natural or cultural theme or type of recreational resource that is not already adequately represented in the national park system or is not comparably protected and presented for public enjoyment by another land-managing entity.

### Cultural Resource Themes

The National Park Service defines cultural themes in a framework format in the *History and Prehistory in the National Park System and the National Historic Landmarks Program* (1987). Although this thematic framework is currently under revision, the above document is the guideline for analyzing the suitability criteria.

Typically, most areas evaluated in NPS studies of alternatives involve a specific resource or geographic location and focus on one or a few central themes set in a limited time frame. This study, however, involves substantial portions of two states and covers a historical time frame of more than 200 years. Rather than focusing on a few central themes, the study area's resources and story elements represent nine diverse, yet interrelated NPS themes.

These nine themes, subthemes, and facets are listed below. The areas listed inside the parentheses are existing units of the national park system and affiliated areas in which these themes, subthemes, and facets are nationally significant. The proposed alternatives include several resources currently within the national park system and those that are existing national historic landmarks.

### Theme III. Development of the English Colonies, 1688-1763

#### Subtheme A. Physical Development

##### Facet 2. Territorial Expansion

(*Fort Frederica National Monument, GA; Ninety Six National Historic Site, SC*)

#### Subtheme C. Military Affairs

##### Facet 1. French (*Fort Necessity*

*National Battlefield, PA; Fort Stanwix National Monument, NY*)

### Theme V. Political and Military Affairs, 1783-1860

#### Subtheme D. Jeffersonian Period, 1800-1811

(*Friendship Hill National Historic Site, PA; Thomas Jefferson Memorial, DC*)

### Theme X. Westward Expansion of the British Colonies and the United States, 1763-1898 (Jefferson National Expansion Memorial, MO)

#### Subtheme C. Military-Aboriginal American Contact and Conflict

Facet 1. East of the Mississippi  
(*Horseshoe Bend National Military Park, AL*)

### Theme XII. Business

#### Subtheme A. Extractive or Mining Industries

Facet 1. Iron and Ferro Alloys (*Saugus Iron Works National Historic site, MA*)

Facet 3. Other Metals and Minerals

#### Subtheme B. Manufacturing Organizations

Facet 2. Transportation Equipment

Facet 4. Fabricated Metal and Glass Products (*Hopewell Furnace National Historic Site, PA*)

Facet 9. Other – Brickmaking

#### **Theme XIV. Transportation**

- Subtheme A. Early Turnpikes, Roads, and Taverns East of the Mississippi
- Subtheme B. Ships, Boats, Lighthouses, and Other Structures (*Cape Hatteras National Seashore, NC; Gateway National Recreation Area, NJ-NY; Golden Gate National Recreation Area, CA*)
- Subtheme C. Canals (*Chesapeake and Ohio Canal Historical Park, MD-DC-WV; Cuyahoga Valley National Recreation Area, OH; Golden Gate National Recreation Area, CA*)
- Subtheme E. Railroads (*Allegheny Portage Railroad National Historic site, PA; Golden Spike National Historic Site, UT; Steamtown National Historic Site, PA*)
- Subtheme G. Autos, Buses, Wagons, and Highways

#### **Theme XVIII. Technology**

- Subtheme B. Transportation (*Allegheny Portage Railroad National Historic Site, PA; Upper Delaware Scenic and Recreational River, NY-PA; Wright Brothers National Memorial, NC*)
- Subtheme C. Energy Conversion, Utilization, and Distribution (*Edison National Historic Site, NJ*)
- Subtheme G. Industrial Production Processes (*Edison National Historic Site, NJ; Lowell National Historical Park, MA*)

#### **Theme XXX. American Ways of Life**

- Subtheme C. Industrial Towns (*Lowell National Historical Park, MA*)
- Subtheme E. Ethnic Communities (*Boston African American National Historic Site, MA; Castle Clinton National Monument, NY; Lowell National Historical Park, MA; Maggie L. Walker National Historic Site, VA; Martin Luther King, Jr., National Historic Site, GA; Statue of Liberty National*

*Monument, NJ-NY; Touro Synagogue National Historic Site, RI; Tuskegee Institute National Historic Site, AL*)

- Subtheme F. Industrial Wealth of the Last Half of the 19th Century (*Cumberland Island National Seashore, GA; Vanderbilt Mansion National Historic Site, NY*)
- Subtheme I. Domesticity and Family Life
- Subtheme J. Occupational and Economic Classes (*Green Springs Historic District, VA; Lowell National Historical Park, MA*)

#### **Theme XXXI. Social and Humanitarian Movements**

- Subtheme C. Women's Rights (*Sewall-Belmont House National Historic Site, DC; Women's Rights National Historical Park, NY*)
- Subtheme H. Labor Organizations

#### **Theme XXXII. Conservation of Natural Resources**

- Subtheme C. The Conservation Movement Matures, 1908-1941
  - Facet 9. Public Health Through Pollution Control

As shown above, representation of relevant themes and subthemes in the national park system varies. Relevant subthemes and facets of the "Business" theme (XII) show limited representation in the system, whereas most subthemes under the "Transportation" (XVIII) and "Technology" (XVIII) themes have greater representation. In addition to various aspects of the "Business" theme (XII), other notable topics with limited or no representation in the system include

- Transportation Theme – Early Turnpikes, Roads, and Taverns East of the Mississippi (XIV.A.); Autos, Buses, Wagons, and Highways (XIV.G.)
- Technology Theme – Construction (XVIII.H.)

- American Ways of Life Theme – Industrial towns (XXX.C.); Domesticity and Family Life (XXX.I.)
- Social and Humanitarian Movements Theme – Labor Organizations (XXXI.H.)
- Conservation of Natural Resources Theme – The Conservation Movement Matures – Public Health Through Pollution Control (XXXII.C.9.)

In addition to units of the national park system, most of the relevant themes, subthemes, and facets are represented by several properties in the national historic landmark system. Topics represented by five or fewer national historical landmark properties include

- Transportation Theme – Autos, Buses, Wagons, and Highways (XIV.G.);
- American Ways of Life Theme – Industrial towns (XXX.C.); Industrial Wealth of the Last Half of the 19th Century (XXX.F.); Domesticity and Family Life (XXX.I.); Occupational and Economic Classes (XXX.J.)
- Conservation of Natural Resources Theme – The Conservation Movement Matures, 1908-1941 – Public Health Through Pollution Control (XXXII.C.9.)

As indicated above, several relevant topics have limited representation in the national park and national landmark systems. Additionally, existing NPS and NHL properties often do not relate to or adequately characterize the national importance of the study area's people and resources. It is the combination of interrelated themes represented here that sets this region apart. Therefore the

resources and stories may be suitable for inclusion in the national park system.

The current effort to revise the NPS cultural thematic framework might consider classifying and highlighting additional stories. For example, aspects of "interaction between people and the landscape," an important story element in this region, are represented among several themes in the NPS framework. However, it has no single counterpart that represents this complete story. The revised framework may provide additional guidance in addressing such themes.

### Natural Resource Themes

The region's resources also represent several natural resource themes, as defined and arranged in *Natural History in the National Park System and the National Registry of Natural Landmarks* (1990c). The study area falls within two natural regions — Appalachian Plateaus and Appalachian Ranges. Relevant themes relating to "Landforms of the Present" include plains, plateaus, and mesas; mountain systems; and river systems and lakes. In addition, several geologic, land ecosystem (eastern deciduous forest), and aquatic ecosystem themes are represented.

In general, the relevant themes in both natural regions are represented by several NPS units and/or the National Registry of Natural Landmarks (NRNL). However, most of these existing units and properties are not closely related to the interrelationships between natural and cultural resources. These interrelationships are a key aspect of the western Pennsylvania region's story that is not adequately represented in the NPS and NRNL systems.



## **FEASIBILITY**

### **Requirements**

To be feasible as a new unit of the national park system, an area must be of sufficient size and appropriate configuration, considering natural systems or historic settings, to ensure long-term protection of resources and to accommodate public use. It must have potential for efficient administration at a reasonable cost. Important feasibility factors include landownership, access, acquisition and development costs, threats to the resources, and staff or development requirements.

Because of the regional scope and conceptual nature of this study, feasibility must be evaluated from a broad perspective. Size and configuration of proposed resources are variable, with adequacy dependent on proposed site use, design, and circulation. Site-specific planning of this type is outside the scope of this study. Therefore, feasibility must be analyzed in detail following more specific planning.

### **Landownership**

Ownership of resources recommended for conservation and interpretation varies from public to private to a combination of both public and private. Approximately 75 percent of these resources are privately owned in full or in part; acquisition or protection of many of these sites may be feasible. Resources protected for public use include properties managed by the National Park Service, Bureau of State Parks, Pennsylvania Historical and Museum Commission, local historical societies, municipalities, and community groups.

### **Access, Costs, and Development**

Access, acquisition and development costs, and staff or development requirements vary

considerably with the resource. Some resources are located in relatively remote rural situations with limited access, while others occur in or near more accessible urban centers. Both settings present distinct access issues and considerations.

Staffing and development requirements and costs are a function of several factors, including extent, type, and condition of existing development and infrastructure; resource setting; and design of proposed development. Because this study is confined to a conceptual evaluation of resources and alternatives, additional site-specific planning will be necessary for each resource to address these requirements.

### **Threats to the Resources**

As highlighted in the "Regional and National Resources" section, important cultural resources in the western Pennsylvania region are being lost almost daily through neglect, alteration, and removal, particularly those associated with the region's industrial heritage. Therefore, the need for conservation of remaining resources has become increasingly urgent.

As the region's cultural, natural, and recreational resources continue to change, there would be opportunity to integrate new development with existing resources in a complimentary fashion. For example, current riverfront planning efforts in the city of Pittsburgh present opportunities for a balanced mix of land uses, including integration of recreational and cultural resources. Sensitive planning would balance the requirements of resource conservation and interpretation with those of other land uses. The challenge is to create an environment that will promote conservation and interpretation of resources while enhancing the quality of life for residents and visitors alike.



## MANAGEMENT CONSIDERATIONS

Determining realistic management options for this study area is a difficult process. Not only is the region large and complex, but many of the resources and concerns are represented by numerous interest groups. For these reasons, no options for management are proposed in this document. However, this document provides the first step in determining realistic management options and should be used as a tool to market the ideas and concepts to possible management entities.

The planning team recommends that to effectively address the issues of management, a separate effort should be initiated in the form of a workshop, commissioning a professional consultant or a combination of the two. Management entities that are capable of implementing and operating the proposed alternatives would need to be identified. If these entities do not exist, they would have to be created.

When determining the best management option, public and private partnerships should be strongly considered. Because of the varied interest in the study area and type of concepts presented in this study, a consorted partnership may be the ideal management prescription. In addition, a management framework is definitely needed for municipal and county planning agencies to coordinate resource conservation and management efforts, and a partnership format would provide an excellent vehicle for developing such a framework.

Under any form of management structure, the managing entities should have the ability to

- protect and preserve the resources identified in this study

- conserve the rich cultural heritage of the region and provide for its interpretation for visitors and the local community
- address the intricate established network of organizations and interest groups in the region
- facilitate the support and participation from all levels of government, private citizens, business, and various organizations and institutions
- establish mechanisms to provide the necessary capital needed to implement and operate this project
- be able to conduct all future planning and design efforts

The range of possibilities for federal involvement in management of the study area would be as follows:

Status quo — existing NPS facilities only

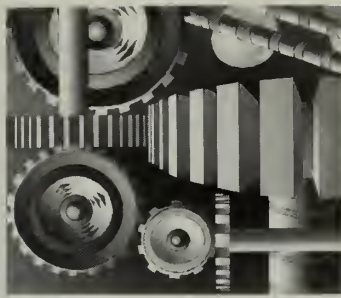
Expanded interpretive programs to incorporate themes and NPS facilities

Technical assistance for planning, design, and interpretation for nonfederal resources and facilities

Partnership in management and conservation of resources and visitor interpretive facilities such as a heritage area

Grants for conservation activities

Full ownership and establishment of NPS unit(s)



## **FUTURE DIRECTIONS FOR CONSIDERATION**

This project has dealt with complex topics that are inherent in dealing with events that occurred over a large geographic area and crossed multiple eras of American history. The results of this study might benefit other groups who are exploring similar questions regarding the heritage of their respective regions. Besides traditional approaches to cultural resources protection and interpretation, future groups are encouraged to address these complex topics with imaginative and creative ideas.

### **EXPANDED CONTEXT**

Future groups might look at how a region's heritage is part of a larger context. It is important to look for possibilities of connections beyond the political boundaries of county and state lines. For example, the industrial region of western Pennsylvania has direct ties to northern West Virginia's colonial and industrial heritage. Other possible connections, by geography, shared experiences, diversity, and transportation exist between the region and sections of Maryland, eastern Ohio, and perhaps into southern West Virginia. In this way a region such as western Pennsylvania can be placed within its broader context and can then be connected to others in order to make a whole that represents the rich heritage of all of American life.

It is apparent that adjacent states and regions have a number of stories and themes in common with the study area related to industrial and nonindustrial topics. Although not addressed in this study of alternatives, adjacent regions may also contain resources that can contribute to a greater understanding of these common stories and themes. Consequently, there is potential in the future to expand the

current study area boundaries to include relevant adjacent areas.

The following map illustrates some of the connections between western Pennsylvania and its surrounding regions that existed historically and still exist today. Western Pennsylvania has always served as an important crossroads for many important transportation corridors. Today these corridors continue to provide vital linkages to surrounding regions. The 600-mile National Old Trails Road that passed through western Pennsylvania and connected Maryland to Illinois and the Lincoln Highway were two of the earliest transcontinental highways. The Pennsylvania Main Line of Public Works connected Philadelphia and Pittsburgh, the Pennsylvania Railroad linked New York and Philadelphia with Chicago and St. Louis, and the Pennsylvania Turnpike was the prototype for the national interstate highway system. (See Connections to Other Regions map.)

### **RECOMMENDATIONS FOR FUTURE STUDY**

The project team has identified areas where further work needs to be done. Educational institutions, historical societies, or others interested in the region's heritage may want to conduct research on the topics listed below. These topics need to be developed more fully and/or further research conducted to ascertain the inclusion of other appropriate resources in the proposed alternatives.

#### **Northern West Virginia**

Identification and evaluation of industrial and nonindustrial resources in northern West Virginia need to be completed to present a complete



picture of the interconnections between western Pennsylvania and northern West Virginia. Resources and stories would include those that represent the expanded themes of Conflict and Conquest, Westward Expansion/ Early Settlement, and the Transportation Revolution. Once this information has been assembled, the appropriate resources could be added to the alternatives.

**Washington, Greene, and Beaver Counties**  
Further research needs to be conducted to more completely identify and then place Washington, Greene, and Beaver counties' important resources within the context of the larger study. Especially important to review are the counties' coal resources and the role they have played in the region's industrial heritage.

#### **Educational Opportunities**

A systematic approach needs to be developed for integrating information about the region's heritage into the area's school systems. Groups currently involved in such individual efforts might form a partnership for sharing ideas and developing a program to reach a variety of age groups and educational levels.

#### **Management Study**

It will be important to include as many local and regional groups as possible in considering management options. Historical societies, land conservation groups, economic development groups, and others should be able to bring their programs to this plan and have their efforts fit into a larger whole where the work of the different groups reinforces the legitimacy of the others. The formation of active partnerships should be explored to maintain effective and efficient management of resources throughout the region.

Management entities need to be identified that are capable of implementing and operating the proposed alternatives and making recommendations on what the best management options will be.

#### **Programmatic Linkages**

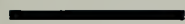

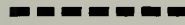

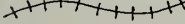

Beyond the scope of this project, yet important to understanding the western Pennsylvania region's place within the American landscape and history, are the programmatic linkages to other areas. For example, development of the oil industry within western Pennsylvania also reflects the development of industry that had enormous impacts on the American way of life. The expansion of the coal mining in West Virginia and the interpretation of that industry has ties to the miners and coal operators of western Pennsylvania. These and other topics should be explored to convey the dynamic and vital nature of America's growth and development.

#### **Implementation Plan**

Once an alternative is selected an implementation plan should be initiated. This plan will have many components and will include:

- An interpretive prospectus that will give a complete picture of the many interrelated stories and themes represented by the region's resources.
- An environmental assessment to evaluate potential environmental impacts of implementing proposed actions on the human environment.
- A comprehensive/schematic plan to provide the basic foundation and direction for all future design and development.



-  PENNSYLVANIA TURNPIKE
-  LINCOLN HIGHWAY
-  NATIONAL ROAD
-  PENNSYLVANIA MAIN LINE CANAL
-  PENNSYLVANIA RAILROAD
-  STUDY AREA



## CONNECTIONS TO OTHER REGIONS

### WESTERN PENNSYLVANIA REGION: ITS LANDSCAPE, PEOPLE, AND INDUSTRY

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE  
957 • 20121A • DSC • MAR 94



## CONSULTATION AND COORDINATION WITH PARTNERS AND PUBLIC

This study of alternatives has been conducted under a partnership format, using the expertise, ideals, and concepts of individual partners.

The Western Pennsylvania Heritage Coordination Group (WPHCG) serves as the principal partner for the project. The mission of WPHCG is to collectively conserve, interpret, develop, and promote the nationally significant story of America's industrial heritage in western Pennsylvania. WPHCG consists of representatives of the Southwestern Pennsylvania Heritage Preservation Commission, Steel Industry Heritage Corporation, Pennsylvania Department of Community Affairs, Pennsylvania Historical and Museum Commission, and the National Park Service's Mid-Atlantic Regional Office and Denver Service Center.

WPHCG's participation has focused on four key points during the study process: review of and concurrence with the task directive, establishment of the planning framework, formulation of alternatives, and review of the draft document. The project team has presented study findings to WPHCG at these key junctures for informational purposes and to elicit feedback. The team

has then used input provided by WPHCG to steer planning activities.

In addition to WPHCG, the project team has worked consistently with a number of key partners that have specialized technical expertise or involvement in similar or related initiatives. These partners are identified in the "Planning Team, Consultants, and Partnerships" section. Points of coordination with one or more partners during the planning process included review of task directives; development of the planning framework; review and comment on NPS resource databases; resource evaluation (including assessing the significance, integrity, and other attributes of resources to develop "short lists" of resources for field investigation); alternatives formulation and review; and draft document review and comment.

Methods used by the project team to involve partners and solicit input have included requests for specific data during the data collection process, interactive planning workshops, circulation of resource data and draft products for review and comment, and joint field reconnaissance of resource sites.



**APPENDIXES**  
**BIBLIOGRAPHY**  
**PLANNING TEAM / CONTRIBUTORS / PARTICIPANTS**



## APPENDIX A: LEGISLATION

102 STAT. 4618

PUBLIC LAW 100-698—NOV. 19, 1988

Public Law 100-698  
100th Congress

### An Act

Nov. 19, 1988  
[H.R. 3313]

To establish in the Department of the Interior the Southwestern Pennsylvania Heritage Preservation Commission, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

16 USC 461 note.

#### SECTION 1. FINDINGS AND PURPOSE.

(a) FINDINGS.—The Congress finds that—

(1) the iron and steelmaking, coal, and transportation industries and the labor of their workers contributed significantly to America's movement westward, allowed for the growth of the Nation's cities, and helped fuel and move its industrial growth and development and establish its standing among nations of the world;

(2) there are only a few recognized historic sites that are devoted to portraying the development and growth of heavy industry and the industrial labor movement in America; and

(3) the 9-county region in southwestern Pennsylvania known as the Allegheny Highlands contain significant examples of iron and steel, coal, and transportation industries, and is a suitable region in which the story of American industrial heritage can be appropriately interpreted to present and future generations.

(b) PURPOSE.—In furtherance of the findings set forth in subsection (a) of this section, it is the purpose of this Act to establish, through a commission representing all concerned levels of government, the means by which the cultural heritage of the 9-county region in southwestern Pennsylvania associated with the three basic industries of iron and steel, coal, and transportation may be recognized, preserved, promoted, interpreted, and made available for the benefit of the public.

16 USC 461 note.

## TITLE I—SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION

#### SEC. 101. ESTABLISHMENT.

(a) IN GENERAL.—To carry out the purpose of this title and to implement, as appropriate, the document which is entitled "Action Plan—America's Industrial Heritage Project" and which is dated August 1987, there is hereby established in the Department of the Interior the Southwestern Pennsylvania Heritage Preservation Commission (hereinafter referred to as the "Commission"). The Commission shall exercise the responsibilities and authorities herein conferred on the Commission with respect to that region in southwestern Pennsylvania comprising the counties of Bedford, Blair, Cambria, Fayette, Fulton, Huntingdon, Indiana, Somerset,



and Westmoreland. The Commission shall consist of 21 members, appointed by the Secretary of the Interior (hereinafter referred to as the "Secretary") as follows:

(1) 2 members appointed from recommendations submitted by the Governor of Pennsylvania of which one shall represent the interests of the Pennsylvania Historical and Museum Commission; and the other shall represent the Pennsylvania Department of Community Affairs;

(2) 9 members appointed from recommendations submitted by the county commissioners of the Pennsylvania counties of Bedford, Blair, Cambria, Fayette, Fulton, Huntingdon, Indiana, Somerset, and Westmoreland, of which one member shall be appointed from the recommendations of each such county from groups and individuals representing historic preservation, tourism promotion, business and industry and industrial and labor history;

(3) 4 members appointed from recommendations from the Southern Alleghenies Planning and Development Commission;

(4) 4 members appointed from recommendations from Laurel Highlands, Inc.;

(5) 2 members appointed by the Secretary from recommendations by the Director of the National Park Service who shall have knowledge and experience in the field of historic preservation; and

(6) the Director of the National Park Service, ex officio, or his delegate.

(b) **APPOINTMENT.**—All members of the Commission shall be appointed for terms of 3 years, except that the terms of the 9 members appointed from recommendations submitted by each county pursuant to subsection (a)(2) shall be for 2 years.

(c) **CHAIRMAN.**—The Commission shall elect a chairman from among its members. The term of the chairman shall be 2 years.

(d) **TERMS.**—Any member of the Commission appointed for a definite term may serve after the expiration of his term until his successor is appointed. Any vacancy in the Commission shall be filled in the same manner in which the original appointment was made. Any member appointed to fill a vacancy shall serve for the remainder of the term for which his predecessor was appointed.

(e) **QUORUM.**—A simple majority of Commission members shall constitute a quorum.

(f) **MEETINGS.**—The Commission shall meet at least quarterly or at the call of the chairman or a majority of its members.

(g) **COMPENSATION.**—Members of the Commission shall serve without compensation as such. Members shall be entitled to travel expenses under section 5703, title 5, United States Code, when engaged in Commission business, including per diem in lieu of subsistence in the same manner as persons employed intermittently.

#### SEC. 102. STAFF OF THE COMMISSION.

(a) **STAFF.**—(1) The Commission shall have the power to appoint and fix the compensation of such staff as may be necessary to carry out its duties.

(2) Staff appointed by the Commission—

(A) shall be appointed subject to the provisions of title 5, United States Code, governing appointments in the competitive service; and

(B) shall be paid in accordance with the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates.

(b) **EXPERTS AND CONSULTANTS.**—Subject to such rules as may be adopted by the Commission, the Commission may procure temporary and intermittent services to the same extent as is authorized by section 3109(b) of title 5, United States Code, but at rates determined by the Commission to be reasonable.

(c) **STAFF OF OTHER AGENCIES.**—(1) Upon request of the Commission, the head of any Federal agency may detail, on a reimbursable basis, any of the personnel of such agency to the Commission to assist the Commission in carrying out the Commission's duties.

(2) The Commission may accept the services of personnel detailed from the Commonwealth of Pennsylvania (and any political subdivision thereof) and may reimburse the commonwealth or political subdivision for those services.

(d) **ADMINISTRATIVE SUPPORT.**—The Administrator of the General Services Administration shall provide such administrative support services as the Commission may request, on a reimbursable basis.

#### SEC. 103. POWERS OF THE COMMISSION.

(a) **IN GENERAL.**—The Commission may for the purpose of carrying out this title hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence, as the Commission may deem advisable.

(b) **BYLAWS.**—The Commission may make such bylaws, rules and regulations, consistent with this Act, as it considers necessary to carry out its functions under this title.

(c) **DELEGATION.**—When so authorized by the Commission, any member or agent of the Commission may take any action which the Commission is authorized to take by this section.

(d) **TECHNICAL ADVISORY GROUPS.**—The Commission may establish and appoint one or more technical advisory groups to provide technical advice in financing, historic preservation, recreation, tourism, and intergovernmental coordination.

(e) **DONATIONS.**—Notwithstanding any other provision of law, the Commission may seek and accept donations of funds, property, or services from individuals, foundations, corporations, and other private entities, and from public entities, for the purpose of carrying out its duties.

(f) **FUNDS FROM OTHER SOURCES.**—The Commission may use its funds to obtain money from any source under any program or law requiring the recipient of such money to make a contribution in order to receive such money.

(g) **MAIL.**—The Commission may use the United States mails in the same manner and upon the same conditions as other departments and agencies of the United States.

(h) **OBTAINING PROPERTY.**—(1) The Commission may obtain by purchase, rental, donation, or otherwise, such property, facilities, and services as may be needed to carry out its duties except that the Commission may not acquire any real property or interest in real property otherwise than under paragraph (2).

(2) Subject to paragraph (3), the Commission may acquire real property, or interests in real property, in the Corridor—

(A) by gift or device; or

(B) by purchase from a willing seller with money which was given or bequeathed to the Commission on the condition that

such money would be used to purchase real property, or interests in real property, in the Corridor.

(3) Any real property or interest in real property acquired by the Commission under paragraph (2) shall be conveyed by the Commission to an appropriate public agency, as determined by the Commission. Any such conveyance shall be made—

(A) as soon as practicable after such acquisition;

(B) without consideration; and

(C) on the condition that the real property or interest in real property so conveyed is used for public purposes.

#### SEC. 104. FUNCTIONS OF THE COMMISSION.

(a) **IN GENERAL.**—The Commission shall—

(1) make loans and grants, from funds appropriated for that purpose or from funds donated or otherwise made available to the Commission, for the purpose of conserving and protecting sites, buildings, and objects which are related to the industrial development of the area and which are included or eligible for inclusion on the National Register of Historic Places;

(2) coordinate activities of Federal, State, and local governments and private businesses and organizations in order to further historic preservation and compatible economic revitalization;

(3) develop guidelines and standards for projects, consistent with standards established by the National Park Service for the preservation of historic properties, including interpretive methods, that will further historic preservation in the region; and

(4) provide advice and assistance in preparation of loan or grant applications to the Commission and applications for loans or grants from other Federal or non-Federal sources in furtherance of the purposes of this title.

Any loan made under this subsection shall be for a term expiring before the date 10 years after the enactment of this Act and shall be subject to such other terms and conditions, including interest, as may be established by the Commission with the approval of the Secretary.

(b) **ANNUAL REPORTS.**—The Commission shall submit an annual report to the Secretary setting forth its expenses and income and the entities to which any loans and grants were made during the year for which the report is made. The Secretary shall submit an annual report to the Congress describing the loans, grants, and technical assistance provided under this Act. Such report shall specify the amount, recipient, and purpose of any loan, grant, or technical assistance so provided and shall include an analysis of the adequacy of actions taken during the previous year to preserve, protect, and interpret the significant sites, buildings, and objects within the area; as well as the anticipated funds and personnel to be made available by the Secretary during the next fiscal year to implement the provisions of this Act.

(c) **COST ESTIMATES.**—Prior to making any grant or loan the Commission shall require detailed cost estimates to be prepared for the project to be funded. Within one year from the date of enactment, the Commission shall submit to the appropriate committees of the Congress detailed cost estimates for the projects identified in the action plan referred to in section 101 of this title.

(d) **STUDY REPORT.**—The Commission, in consultation with the Secretary, the Pittsburgh Area Steel Industry Heritage Task Force,

Loans.  
Grants.  
Conservation.



and other interested parties which represent the greater Allegheny and Washington Counties/Mon-Valley area shall within 2 years of enactment of this Act, submit a report concerning the cultural and historical resource values of the greater Allegheny and Washington Counties/Mon-Valley area to the Secretary. Such report shall include an analysis of the methods and means of inventorying, preserving and interpreting the cultural and historical resources of the area, along with recommendations concerning the coordination of activities in the 11 counties represented by the Commission and the Pittsburgh Area Steel Industry Heritage Task Force and other interested parties. The Secretary shall review the report and submit it along with any comments or recommendations that the Secretary may wish to make to the Committee on Interior and Insular Affairs of the United States House of Representatives and the Committee on Energy and Natural Resources of the United States Senate within 180 days after receipt of such report from the Commission.

(e) EXPIRATION.—The Commission established pursuant to this title shall cease to exist 10 years from the date of enactment of this Act. Any property or funds of the Commission remaining upon the expiration of the Commission shall be transferred by the Commission to the United States, to a State or local government agency, to a private nonprofit organization exempt from income taxes under section 501(c)(3) of the Internal Revenue Code of 1986, or to any combination of the foregoing.

#### SEC. 105. AUTHORIZATION OF APPROPRIATIONS.

There is hereby authorized to be appropriated \$3,000,000 to the Commission to carry out the purposes of this title. Funds may be made available pursuant to this section only to the extent they are matched by equivalent funds from non-Federal sources.

16 USC 1244  
note.

## TITLE II—SOUTHWESTERN PENNSYLVANIA INDUSTRIAL HERITAGE ROUTE

#### SEC. 201. DESIGNATION OF ROUTE.

(a) DESIGNATION.—In order to provide for public appreciation, education, understanding, and enjoyment of certain nationally and regionally significant sites in southwestern Pennsylvania which are accessible by public road, the Secretary of Interior (hereinafter referred to as the "Secretary"), with the concurrence of the agency having jurisdiction over such roads, shall designate, by publication of a description thereof in the Federal Register, a vehicular tour route along existing public roads linking historic, cultural, natural, scenic, and recreational sites in southwestern Pennsylvania. Such route shall be known as the Southwestern Pennsylvania Industrial Heritage Route (hereinafter referred to as the "route"), and shall be marked with an appropriate marker to guide members of the visiting public. With the concurrence of the State or local entity having jurisdiction over such roads so designated, the Secretary may erect thereon signs and other informational devices displaying the Southwestern Pennsylvania Industrial Heritage Route marker. The Secretary is authorized to accept the donation of signs and other informational devices for placement at appropriate locations along the route.

Federal  
Register,  
publication.

Gifts and  
property.

(b) **INITIAL ROUTE.**—The route as initially designated shall include public roads linking Allegheny Portage Railroad National Historic Site, Johnstown Flood National Memorial, Historic Saltsburg, Eliza and Mt. Etna Furnaces, the Charles Schwab Estate, Friendship Hill National Historic Site, Fort Necessity National Battlefield, Altoona Railroad Shops, Altoona Railroader's Memorial Museum, Cambria Iron Works, Johnstown Inclined Plane, Johnstown Flood Museum, Conemaugh Gap, East Broadtop Railroad National Historic Landmark, Gallitzin Tunnels, Horseshoe Curve National Historic Landmark, Fort Ligonier, Bushy Run Battlefield, Seldom Seen Valley Mine, and Somerset Historical Center.

(c) **ADDITIONAL SEGMENTS.**—The Secretary may, in the manner set forth in section 201 of this title, designate additional segments of the route from time to time as appropriate to link the sites referred to in subsection (b) with other historic, cultural, natural, scenic, and recreational sites when such sites are designated and protected by Federal, State and local governments, Indian tribes, or nonprofit entities.

#### **SEC. 202. TECHNICAL ASSISTANCE.**

With respect to sites linked by segments of the route which are administered by other Federal, State, local, tribal, or nonprofit entities, the Secretary may, pursuant to cooperative agreements with such entities, provide technical assistance in the development of interpretive devices and materials in order to contribute to public appreciation of the historic, cultural, natural, scenic, and recreational sites along the route.

#### **SEC. 203. AUTHORIZATION OF APPROPRIATIONS.**

There is hereby authorized to be appropriated \$150,000 to the Secretary to carry out the purposes of this title. No funds made available under this title shall be used for the operation, maintenance, or repair of any road or related structure.

Approved November 19, 1988.

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#### **LEGISLATIVE HISTORY—H.R. 3313:**

HOUSE REPORTS: No. 100-789 (Comm. on Interior and Insular Affairs).

SENATE REPORTS: No. 100-533 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD, Vol. 134 (1988):

July 26, considered and passed House.

Oct. 21, considered and passed Senate, amended. House concurred in Senate amendments.

## APPENDIX B: STUDY OF ALTERNATIVES PROCESS

To determine suitable and logical alternatives for this study a methodological process was followed. This process is illustrated on the following chart.

The first step in this process was to compile a comprehensive database that entailed collecting and assessing all available research, historical information, and related planning efforts. This step also included meeting with all partners to understand their concerns and perspectives about the project.

Once this database was established, the planning team developed the planning framework. The

framework was the initial step in defining the parameters for the project and involved creating the vision, goals, and story elements, and defining the geographic area of study.

Resources were then evaluated and divided into four categories — the original industrial resource database, scenic and recreational database, the expanded theme resource database, and other resources identified in related planning efforts.

From these resources, the use and conservation alternatives were developed. The alternatives reflect the significance of the region and the vision and goals that were established.



# STUDY OF ALTERNATIVES PROCESS

**COMPILE  
DATABASE**



**DEVELOP  
PLANNING FRAMEWORK**



**EVALUATE  
RESOURCES**



**SCENIC AND  
RECREATIONAL  
DATABASE**

**INDUSTRIAL  
RESOURCE  
DATABASE**

**EXPANDED  
THEME  
RESOURCE  
DATABASE**

**RELATED  
PLANNING  
EFFORTS**



**DETERMINE USE AND  
CONSERVATION ALTERNATIVES**



**FINAL STUDY  
OF ALTERNATIVES**

## APPENDIX C: CULTURAL RESOURCE PRESERVATION TREATMENTS

The following four categories of preservation treatment for historic structures are outlined in the NPS *Cultural Preservation Guidelines*. Some or all of these treatments could be applied at the hub and spoke sites described in this study:

**Preservation:** Preservation maintains the existing integrity and character of a historic structure by arresting or retarding deterioration caused by natural forces and normal use. It includes both maintenance and stabilization. Maintenance is a systematic activity mitigating wear and deterioration of a structure by protecting its condition. Stabilization involves reestablishing the stability of an unsafe, damaged, or deteriorating structure while maintaining its existing character.

**Rehabilitation:** Rehabilitation improves the utility or function of a historic structure, through repair or alteration, to make possible a compatible contemporary use

while preserving those portions or features that are important in defining its significance. Adaptive reuse is included under this category.

**Restoration:** Restoration accurately presents the form, features, and character of a historic structure as it appeared at a specific period. It may involve the replication of missing historic features and removal of later features, some having value in themselves.

**Reconstruction:** Reconstruction entails reproducing the form, features, and character of a non-surviving historic structure, or any part thereof, as it appeared at a specific time and place. Reconstruction of an entire structure is always a last-resort measure for addressing a management objective and is not considered an appropriate treatment for the resources of this study.

## APPENDIX D: INDUSTRIAL RESOURCE EVALUATION CRITERIA AND DATABASES

### IRON AND STEEL, COAL AND COKE, GLASS, AND ALUMINUM RESOURCES

Resource evaluation criteria were established for the original coal and coke, iron and steel, and glass studies as a means to provide a framework for collecting data on resources and then evaluating them for historical significance. The criteria for historical significance were formed in part from NPS *Management Policies' Criteria for National Significance, Coal and Coke Resource Analysis' Site Evaluation Criteria*, and from input from project partners (historians and cultural resource experts from state and private organizations in Pennsylvania and West Virginia).

The criteria developed pertained primarily to 19th and 20th century cultural characteristics, which included *resource representation of story elements* and *resource integrity*. The story elements that were originally used for this evaluation were specific to industry types and included: natural resources, immigration, community life, labor, transportation, industrialization, technology, the changing landscape, business, and interindustry relationships. Evaluation criteria were also formed that pertained only to the specific industries, and secondary criteria were formed to evaluate physical characteristics of the resource site and adjacent site influences. Resources for the aluminum study were based explicitly on National Register of Historic Places criteria.

Three comprehensive databases were compiled for iron and steel, coal and coke, and glass resources. A historic resources survey was prepared for the aluminum resources, in lieu of a database. (See the Industrial Resource Database map for a compilation of resources.) Both the databases and the survey represent a compilation of cultural resource sites for the specific industries based on a geographical area. The geographical area for each of the industry databases is as follows:

**Iron and Steel:** 13 counties in Pennsylvania: Greene, Washington, Allegheny, Beaver, Fayette, Westmoreland, Indiana, Cambria, Somerset, Bedford, Blair, Huntingdon and Fulton; and eight counties in West Virginia: Hancock, Brook, Ohio, Monongalia, Marion, Taylor, Barbour, and Preston

**Coal and Coke:** two counties in Pennsylvania: Fayette and Westmoreland

**Glass:** five counties in Pennsylvania: Allegheny, Beaver, Fayette, Washington and Westmoreland; and eight counties in West Virginia: Brooke, Harrison, Marion, Marshall, Monongalia, Ohio, Taylor, and Wetzel

**Aluminum:** two counties in Pennsylvania: Allegheny and Westmoreland

For the iron and steel, coal and coke, and glass studies, the information was compiled in table form and was obtained from secondary sources consisting primarily of inventories of historic engineering and industrial sites, historic site surveys, and through correspondence with project partners. No primary historical sources were consulted nor was any information derived from field surveys. The following categories were used in compiling the databases:

**Resource Name:** name or names of resource as referenced in source documents.

**Location:** location of resource site as indicated in source documents; based on proximity to nearest town or by county/state road name

**Extant Resources:** brief description of resources, including kind and number of structures, and/or archeological remains

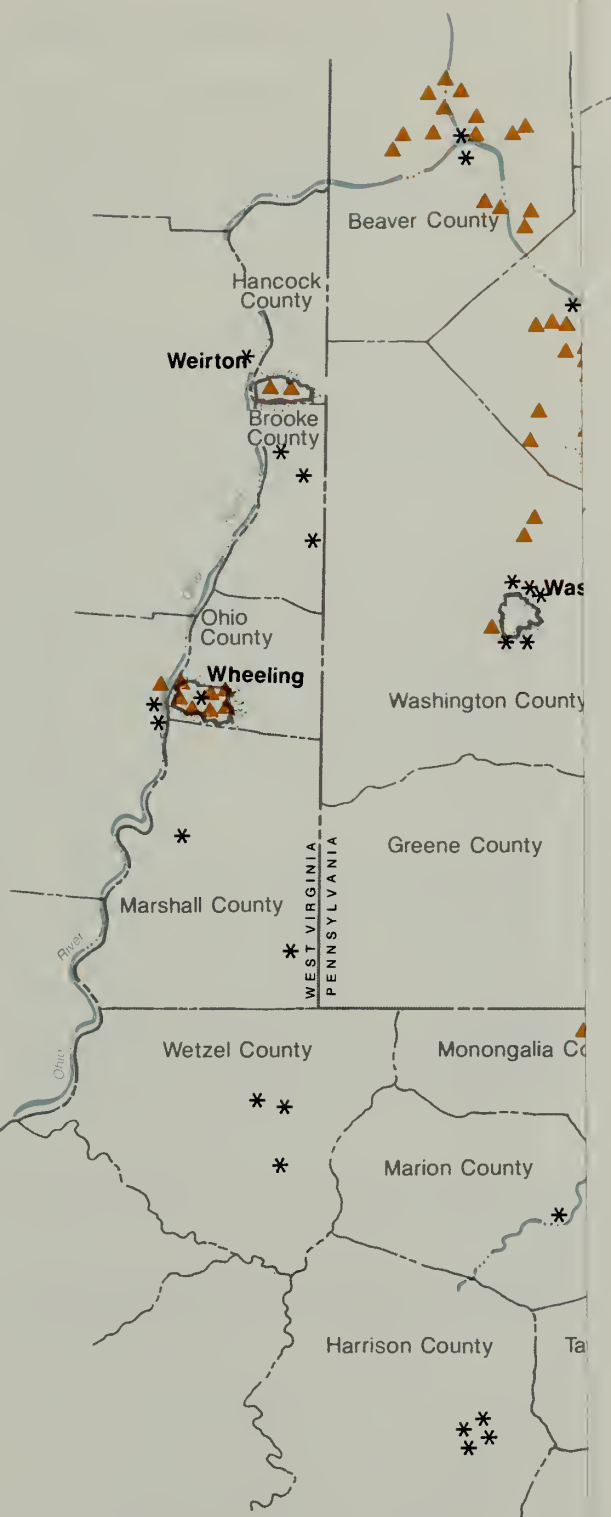
**Date:** date of operation for industrial resources and date of construction for community and other nonoperational structures

**Ownership:** names of companies and dates where the resource was under more than one ownership

**Comments:** condition of resource, national register status, representation of story elements, and other pertinent information

The database compiled for the aluminum study was assembled through primary and secondary sources, and as the number of resources was comparatively smaller than that of the other representative industries listed above, a Pennsylvania Historic Resource Survey Form was completed for each aluminum-related resource in the study area.



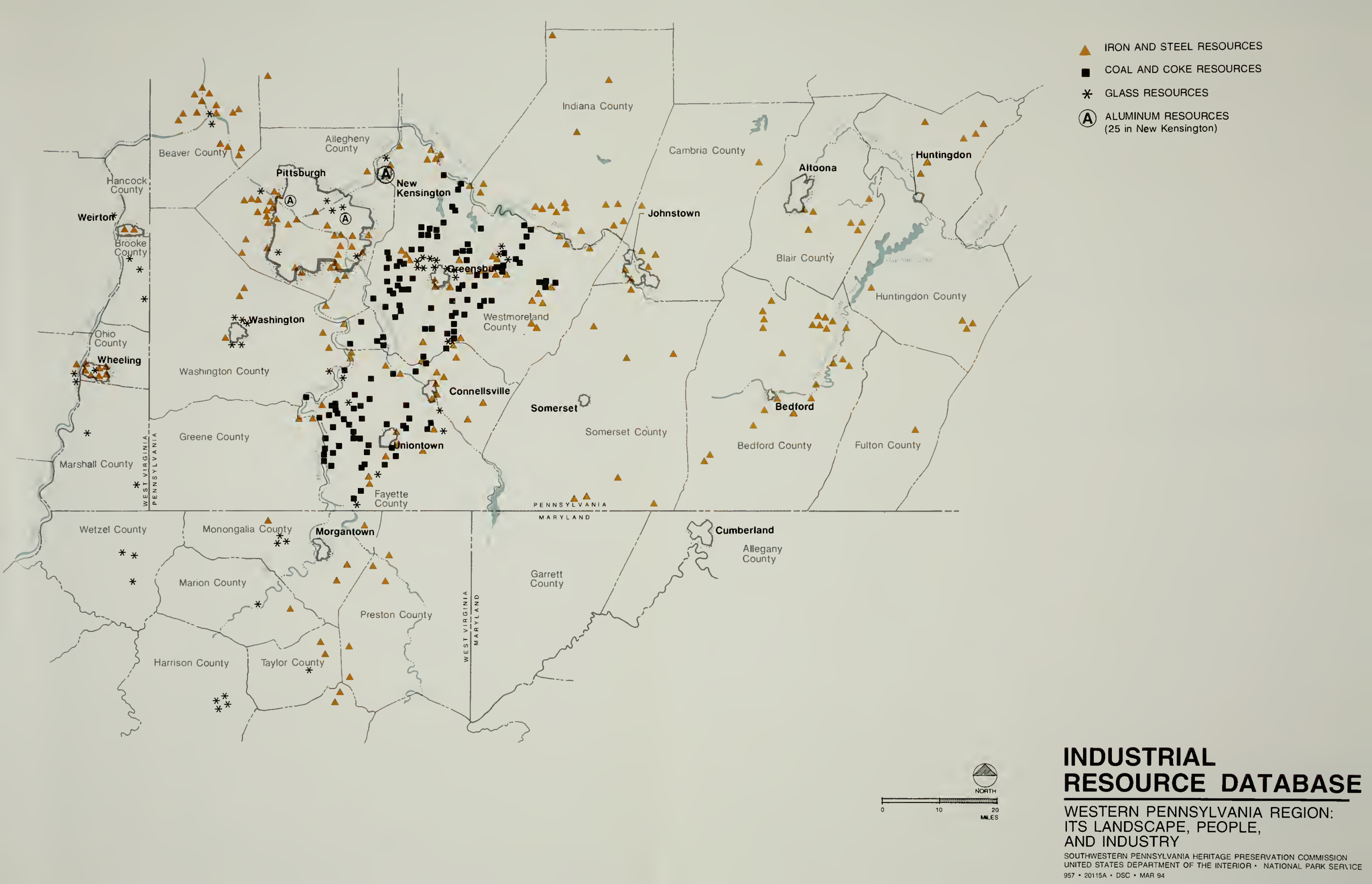


- ▲ IRON AND STEEL RESOURCES
- COAL AND COKE RESOURCES
- \* GLASS RESOURCES
- Ⓐ ALUMINUM RESOURCES  
(25 in New Kensington)

# INDUSTRIAL RESOURCE DATABASE

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE  
957 • 20115A • DSC • MAR 94



- ▲ IRON AND STEEL RESOURCES
- COAL AND COKE RESOURCES
- \* GLASS RESOURCES
- Ⓐ ALUMINUM RESOURCES  
(25 in New Kensington)

# INDUSTRIAL RESOURCE DATABASE

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

APPLICATION OF  
RESOURCE EVALUATION CRITERIA

The following information describes the process by which criteria were used for the resource evaluation from the iron and steel, coal and coke, and glass studies. Aluminum resources were evaluated explicitly through the application of National Register of Historic Places criteria, as noted further in this section.

The objective of this process was to develop a short list of resources from the databases that were created for each industry type. This short list is represented on the Refined Industrial Resource Inventory map. An objective process was developed in which each resource could be given a numerical score based on select evaluation criteria.

The project team began with the overall resource evaluation criteria established for the industrial studies. For the level of information included in the databases, the cultural criteria (listed as follows) were appropriate for the evaluation; however, the secondary criteria that were formed to evaluate physical characteristics were not appropriate and were only used during site visitation.

- 1. Representation of Story Elements: Site is associated with one or more of the story elements and possesses qualities necessary for illustrating or interpreting these themes.
- 2. Resource Integrity: Resource is intact or remaining features have not been modified to the extent of compromising its historical identity or significance. The resource retains a strong sense of historical character, architecture, and setting.

Specific industry criteria were also applied to the rating process as discussed further in this section.

In rating the industrial resources, representation of story elements was given a value according to the following scale:

- 0 Resource does not represent any of the story elements.
- 1 Resource provides weak representation of one or more story elements.

- 2 Resource provides good representation of two or more story elements.
- 3 Resource provides very good representation of two or more story elements, or unique or outstanding representation of at least one story element.

In rating the industrial resources, resource integrity was given a value according to the following scale:

- 0 Aboveground structures have been removed; there may be archeological remains of structures onsite.
- 1 Resource integrity is low; structures may be in ruins or the majority of the original structures may have been removed or modified.
- 2 Resource integrity is good; some of the original structures are present and they have not been severely modified.
- 3 Resource integrity is excellent; many of the original structures are present, are intact, and have little to no modifications.

IRON AND STEEL RATING

For the iron and steel resources an additional notation was made in the rating process to show the industry phases represented by the site. This notation served as a reminder of the potential value for site interpretation of the historical evolution of the industry. It was informational only and did not affect the total rating given to the site. The following notations were used:

- a Early Development represented to 1889
- b Transition — 1889 to 1920
- c Maturation — 1920 to 1970
- d Decline — 1970 to present

The highest total rating for an iron or steel resource is a total of 6–3 for representation of story elements and 3 for resource integrity.



## GLASS RATING

For the glass resources an additional notation was made in the rating process to indicate the branch of the glass industry represented by the resource. This notation was informational only and did not affect the total rating given to the site. The following categories were used:

- f Flat Glass (including window glass)
- g Glassware (including containers, tableware, novelties)
- q Quarry

The highest total rating for a glass resource is a total of 6–3 for representation of story elements and 3 for resource integrity.

## COAL AND COKE RATING

For the coal and coke resources an industry specific evaluation criterion was applied to the rating process:

**Complete Work Site/Company Town:** Site is complete and/or contains resources that depict many aspects of the coal and coke story, for example: the site may contain not only ovens but related coking equipment and support buildings, rail facilities, company housing, company store and other community features.

This criterion was rated as follows:

- 0 Resource does not represent this criterion.
- 1 Resource contains some extant features that represent the criterion.
- 2 Resource provides good representation of a complete work site/company town.
- 3 Resource is an excellent example of a complete work site/company town.

As the focus of this study is the coking industry rather than the coal industry as a whole, the resource sites at which there were no coking facilities were rated no higher than a 1 for this criterion.

The project team felt that the story elements and resource integrity criteria were critical elements that should carry more weight than the industry-specific criterion. Consequently the first two criteria were assigned a weight of 2 and the industry-specific criterion a weight of 1. With this rating process, the highest possible rating for a coal and coke site was 15 — 6 for representation of story elements, 6 for resource integrity and 3 for a complete work site/company town.

After evaluating all resources in the three databases, the evaluation team sought more information from regional experts regarding those sites for which the source material contained insufficient information. The databases were then updated with additional information and resources were rated. A small percentage of sites remained unrated, however, due to insufficient information.

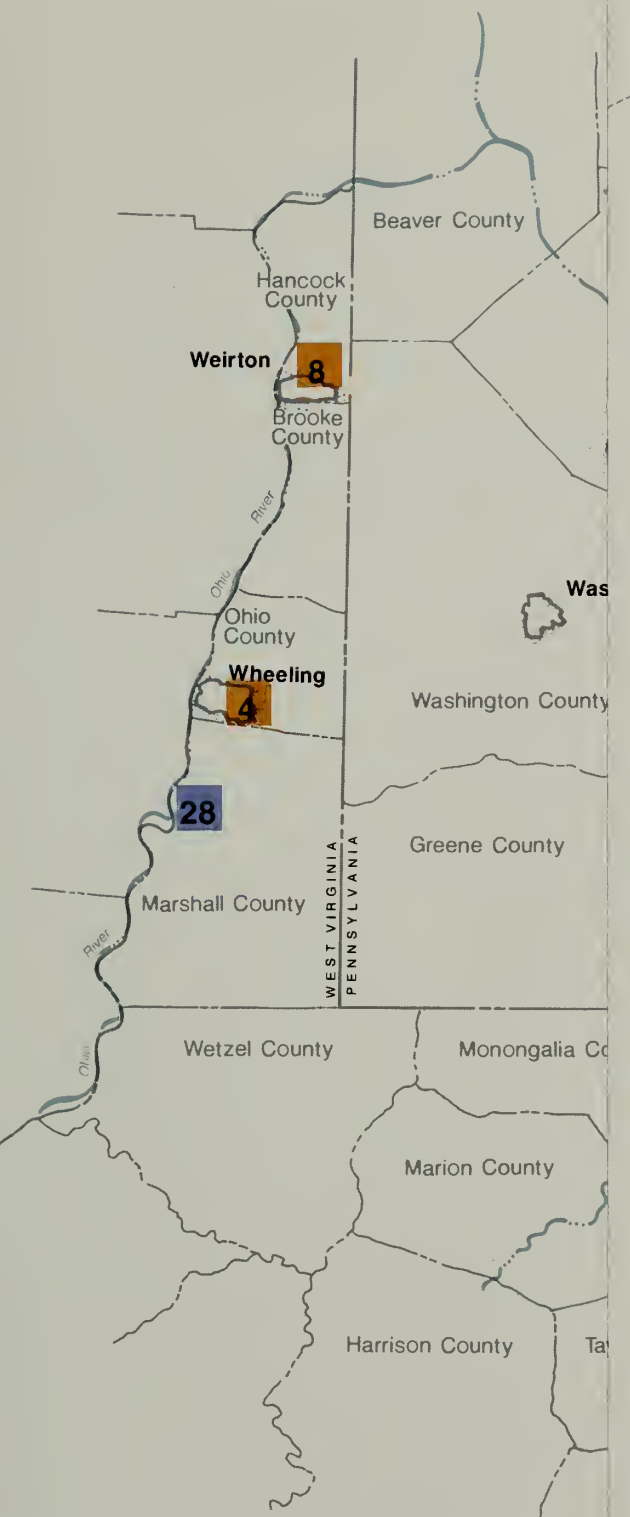
## ALUMINUM RESOURCE RATING

Based on the national register criteria, eight aluminum resources were deemed eligible for the national register. Although these eight resources were given priority, all of the aluminum resources evaluated were within close proximity of one another, no short list was compiled for visitation, and all sites were visited.

## RESOURCE SHORT LIST COMPILATION

A tentative short list of approximately 60 of the highest rated resources was compiled for the coal and coke and iron and steel studies. A short list of 10 of the highest rated resources was compiled for the glass study.

For the coal and coke/iron and steel studies, the project team met with historians and other cultural resource experts (partners) from Pennsylvania and West Virginia and state and private organizations. At this meeting, the project team presented the process for evaluation and the tentative short list of resources. The tentative short list was discussed at length between the partners and the project team and the tentative short list was reduced by about a half. Site visits and evaluations of the revised short list of sites were conducted by the project team and include the following resources:



#### IRON AND STEEL RESOURCES

1. HOMESTEAD / CARRIE FURNACES
2. DUQUESNE
3. EDGAR THOMSON PLANT / IRVIN PLANT
4. WHEELING HERITAGE PROJECT AREA
5. CLAIRTON WORKS
6. MONESSEN WORKS
7. ALLEGHENY LUDLUM CORPORATION
8. WEIRTON STEEL CORPORATION
9. CAMBRIA IRON COMPANY NHL
10. ELIZA FURNACE
11. ALLEGHENY FURNACE
12. MT. ETNA IRON FURNACE COMPLEX
13. HUNTINGDON FURNACE
14. GREENWOOD FURNACE
15. ISAAC MEASON HOUSE NHL
- 15a. MCKEESPORT

#### COAL AND COKE RESOURCES

16. RONCO
17. SHOAF COKE WORKS
18. ALLISON MINE AND COMPANY TOWNS NO. 1 AND NO. 2
19. SMOCK
20. DUNBAR
21. LEISENRING NO. 1 COMPANY TOWN
22. DAWSON
23. BROADFORD
24. EVERSON REPAIR SHOPS
25. SCOTSDALE OFFICES / ALVERTON COKE WORKS
26. SCAB HILL
27. TRAUGER AND HECLA NO. 2 MINE AND COKE WORKS

#### GLASS RESOURCES

28. FOSTORIA GLASS
29. L.E. SMITH GLASS CO.
30. GENERAL GLASS INDUSTRIES
31. WESTMORELAND GLASS CO.
32. AMERICAN WINDOW GLASS CO.
33. PPG INDUSTRIES
34. ANCHOR HOCKING GLASS CO.

#### ALUMINUM RESOURCES

35. ALCOA ALUMINUM RESEARCH LABORATORIES
36. ALCOA ALUMINUM CLUBHOUSE
37. ALCOA NEW KENSINGTON WORKS
38. WEAREVER BUILDING
39. ALUMINUM CITY TERRACE

#### OTHER INDUSTRIAL RESOURCES

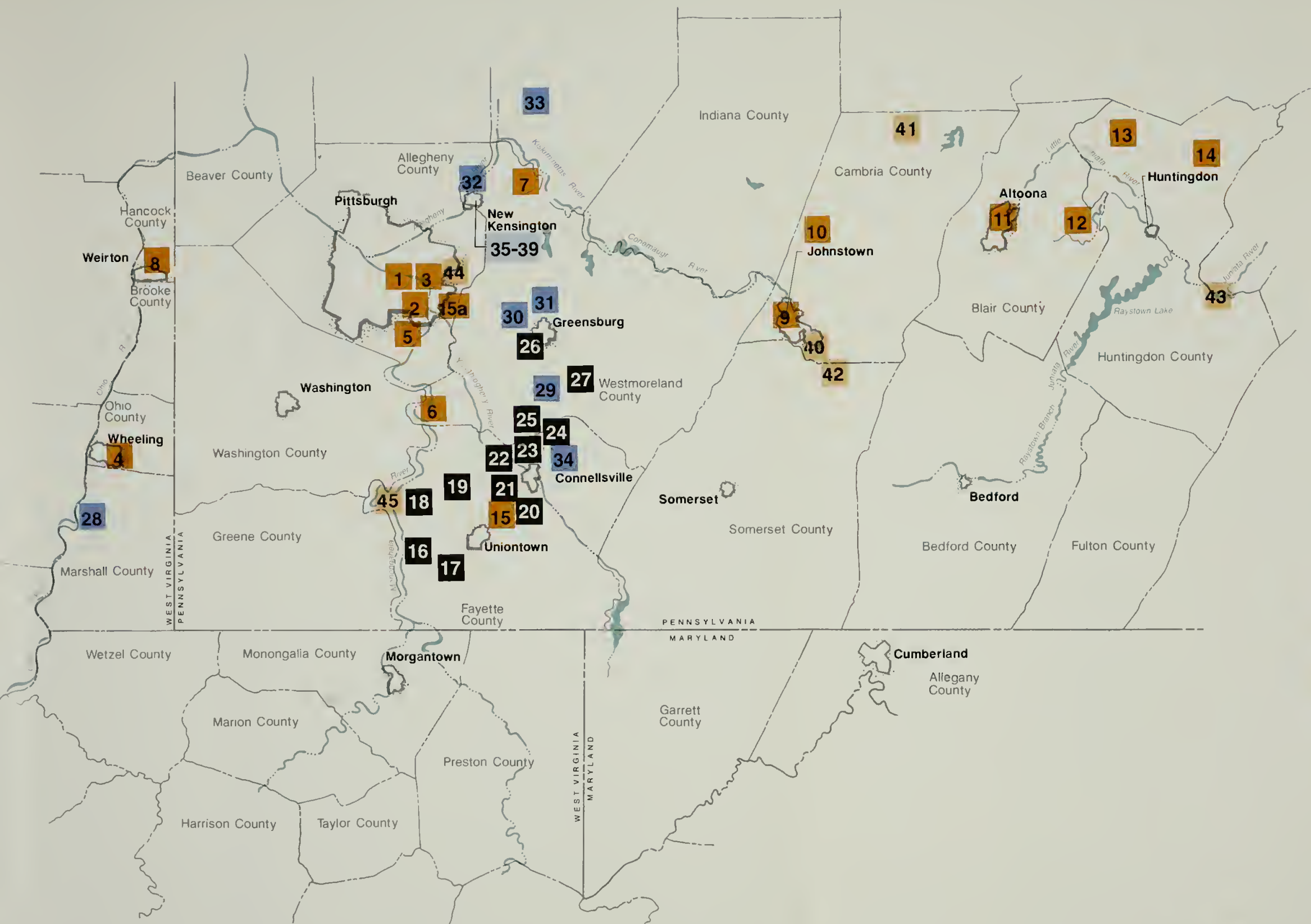
##### COAL RESOURCES

40. EUREKA MINE 40 / SCALP LEVEL HISTORIC DISTRICT
41. SELDOM SEEN VALLEY MINE
42. WINDBER HISTORIC DISTRICT
43. HARBISON-WALKER REFRACTORIES COMPANY
44. WESTINGHOUSE ELECTRIC COMPANY
45. BROWNSVILLE HISTORIC DISTRICTS

## REFINED INDUSTRIAL RESOURCE INVENTORY

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE  
957 • 20114B • DSC • JUL 94



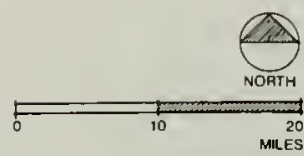
- IRON AND STEEL RESOURCES**
1. HOMESTEAD / CARRIE FURNACES
  2. OUQUESNE
  3. EDGAR THOMSON PLANT / IRVIN PLANT
  4. WHEELING HERITAGE PROJECT AREA
  5. CLAIRTON WORKS
  6. MONESSEN WORKS
  7. ALLEGHENY LUDLUM CORPORATION
  8. WEIRTON STEEL CORPORATION
  9. CAMBRIA IRON COMPANY NHL
  10. ELIZA FURNACE
  11. ALLEGHENY FURNACE
  12. MT. ETNA IRON FURNACE COMPLEX
  13. HUNTINGDON FURNACE
  14. GREENWOOD FURNACE
  15. ISAAC MEASON HOUSE NHL
  - 15a. MCKEESPORT

- COAL AND COKE RESOURCES**
16. RONCO
  17. SHOAF COKE WORKS
  18. ALLISON MINE AND COMPANY TOWNS NO. 1 AND NO. 2
  19. SMOCK
  20. OUNBAR
  21. LEISENRING NO. 1 COMPANY TOWN
  22. DAWSON
  23. BROADFORD
  24. EVERSON REPAIR SHOPS
  25. SCOTTOALE OFFICES / ALVERTON COKE WORKS
  26. SCAB HILL
  27. TRAUGER AND HECLA NO. 2 MINE AND COKE WORKS

- GLASS RESOURCES**
28. FOSTORIA GLASS
  29. L.E. SMITH GLASS CO.
  30. GENERAL GLASS INDUSTRIES
  31. WESTMORELAND GLASS CO.
  32. AMERICAN WINDOW GLASS CO.
  33. PPG INDUSTRIES
  34. ANCHOR HOCKING GLASS CO.

- ALUMINUM RESOURCES**
35. ALCOA ALUMINUM RESEARCH LABORATORIES
  36. ALCOA ALUMINUM CLUBHOUSE
  37. ALCOA NEW KENSINGTON WORKS
  38. WEAREVER BUILDING
  39. ALUMINUM CITY TERRACE

- OTHER INDUSTRIAL RESOURCES**
- COAL RESOURCES**
40. EUREKA MINE 40 / SCALP LEVEL HISTORIC DISTRICT
  41. SELDOM SEEN VALLEY MINE
  42. WINDBER HISTORIC DISTRICT
  43. HARBISON-WALKER REFRACTORIES COMPANY
  44. WESTINGHOUSE ELECTRIC COMPANY
  45. BROWNSVILLE HISTORIC DISTRICTS



# REFINED INDUSTRIAL RESOURCE INVENTORY

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY



**Coal and Coke Resources**

Scottdale/Frick Offices, Ronco Company  
Town, Dawson, Smock, Trauger, Alverton,  
Adams Hill, Everson, Shoaf, Dunbar,  
Broad Ford, Allison and Leisenring No. 1

**Iron and Steel Resources**

Allegheny, Huntingdon, Eliza,  
Greenwood and Mt. Etna furnaces,  
Vandergrift/ Allegheny Ludlum, Edgar  
Thomson Works, Monessen, Homestead,  
McKeesport, Duquesne, Clairton,  
Cambria Iron Company, Weirton, Isaac  
Meason House, and Wheeling Heritage  
Project Area

Site visits and evaluations of the short list for the  
glass study were conducted by the project team  
and include the following resources:

PPG Industries, Anchor Hocking Glass Co.,  
Corning Glass Co., AMWG - Jeanette,  
Westmoreland Glass Co., Fostoria Glass Co.,  
and Beaumont Glass Co.

Site visits and evaluations of all of the aluminum  
study resources were conducted by the project  
team. Based on the site visit evaluations, the  
following resources were short listed as those  
recommended for the alternatives:

Alcoa New Kensington Works, Wearever  
Building, Alcoa Aluminum Research  
Laboratories, Aluminum City Terrace, and  
the Aluminum Clubhouse.

## APPENDIX E: EXPANDED THEME RESOURCES

In addition to industrial resources, nonindustrial resources comprise an important part of the region's cultural resources. As a number of these resources have previously been evaluated or studied, and some have conservation measures in place, a different approach was taken to compile a database. For the nonindustrial resources, the project team started first with the 1987 edition of *History and Prehistory in the National Park System and National Historic Landmarks Program* (thematic framework). A number of the themes represented in the thematic framework are directly associated with the story elements, and both National Park Service and National Historic Landmark resources were compiled from the thematic framework for the nonindustrial resource database.

Other resources were gathered from documents created by the National Park Service for America's Industrial Heritage Project, including the *Transportation Special History Study*, the *National Road Special Resource Study*, the *Concept Plan for the Southwestern Pennsylvania Heritage Tour Route*, and the *Comprehensive Management Plan for the Southwestern Pennsylvania Heritage Preservation Commission*.

For the industrialization story element there was adequate data collection from the four original industrial studies. However, other types of related industrial resources are prevalent throughout the region and were added to the study.

The cultural resource evaluation criteria that were used for the industrial resources were also applied to the expanded resources. However, the database compilation of the resources was based primarily on the resource representation of story elements. Additional sources were consulted to evaluate the resource integrity as needed.

Resources were categorized under themes, subthemes, and facets of the thematic framework that related specifically to the story elements. Following is an outline showing the story element/thematic framework relationship, resources that were listed in the thematic framework, and resources that (although not national historic landmarks or national park sites) are representative of the story elements. Not all resources used in the alternatives or

compiled in the database are included in this outline, but all resources were categorized in this manner and are shown on the Nonindustrial Resource map.

The outline is fashioned after that of the thematic framework and utilizes the following hierarchy:

### Story Element (Conflict and Conquest)

Theme Number, Name, and Concept (III.  
Development of the English Colonies)  
Subtheme (A. Physical Development)  
Facet Number and Name  
(Territorial Expansion)  
Resource for Alternative  
(Bushy Run Battlefield NHL)

**Note:** Story elements were derived by the study team; theme, concept, subtheme, and facets are from the thematic framework; and the alternative resource, unless otherwise indicated, is listed in the thematic framework.

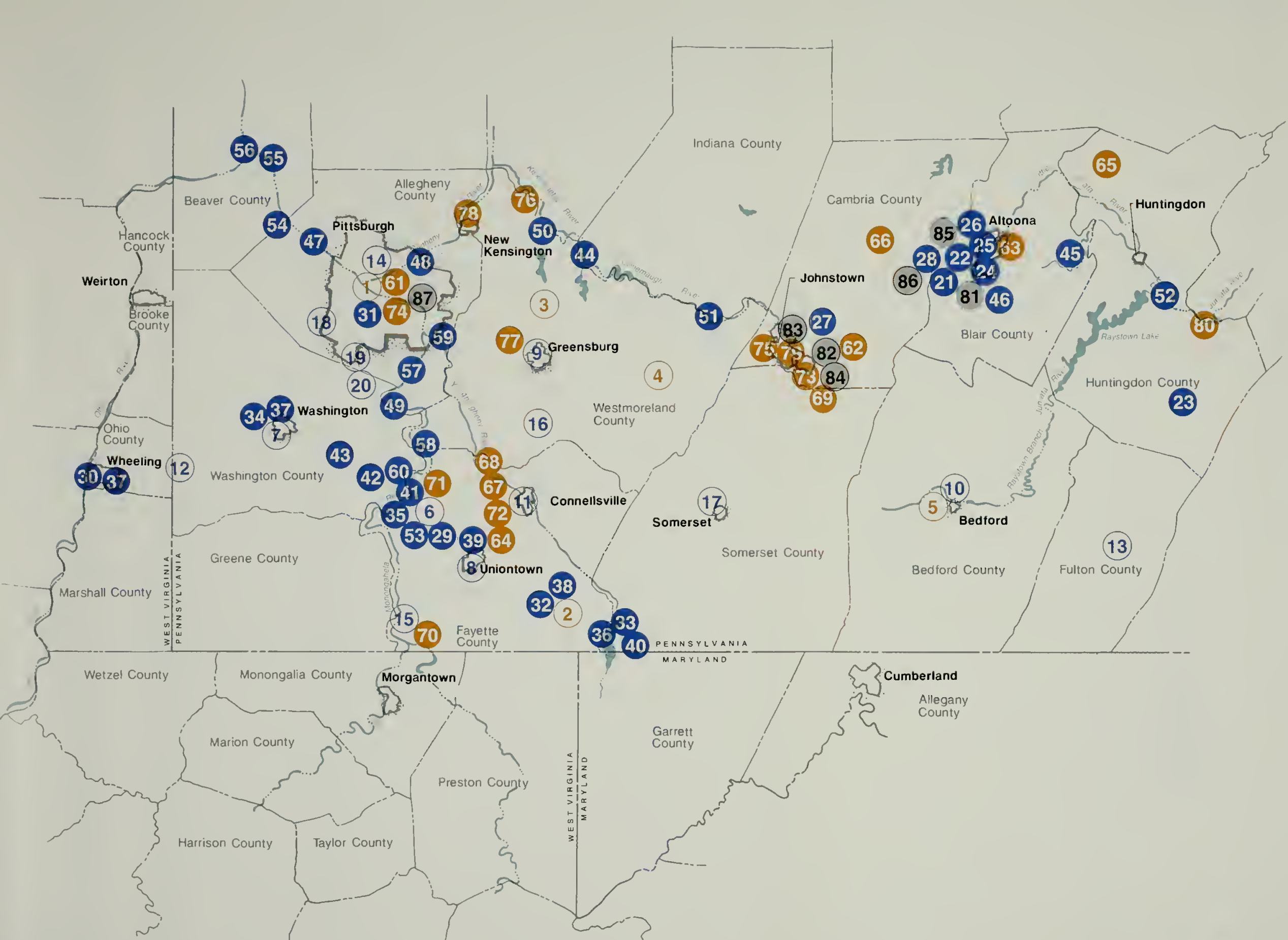
### Conflict and Conquest

The themes that were used to establish resources for Conflict and Conquest are as follows:

- III. Development of the English Colonies, 1688–1763
- This theme focuses on the physical, military, and political development of Great Britain's North American colonies during the 18th century. The period was marked by the defeat and occupation of New France, by a significant increase in population and wealth, and by a growing independence of thought and action stimulated by the distinctive environment of a new continent.
- A. Physical Development
    - 2. Territorial Expansion
      - Bushy Run Battlefield NHL
      - Forks of the Ohio NHL
  - C. Military Affairs
    - 1. French
      - Fort Necessity NB
      - Forks of the Ohio NHL







- CONFLICT AND CONQUEST**
  1. Forks of the Ohio NHL (Fort Pitt Museum)
  2. Fort Necessity NB
  3. Bushy Run Battlefield NHL
  4. Fort Ligonier
  5. Fort Bedford Museum
- WESTWARD EXPANSION / EARLY SETTLEMENT**
  6. Brownsville Historic Districts
  7. David Bradford House
  8. Uniontown Downtown Historic District
  9. Greensburg
  10. Espy House NHL
  11. Connellsville
  12. West Alexander
  13. Fulton House
  14. Forks of the Ohio NHL (Fort Pitt Museum)
  15. Friendship Hill NHL
  16. West Overton Village
  17. Somerset Historical Center
  18. Neville House
  19. Oliver Miller Homestead
  20. Mingo Creek Cemetery
- TRANSPORTATION REVOLUTION**

Railroads
  21. Allegheny Portage Railroad NHS
  22. Horseshoe Curve NHL
  23. East Broad Top NHL
  24. Railroaders Memorial Museum
  25. Charles Dudley House NHL
  26. Juniata Locomotive Shops
  27. Staple Bend Tunnel
  28. Gallitzin Tunnels

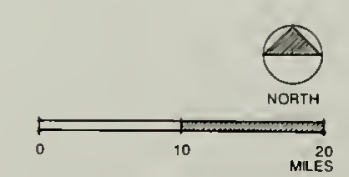
Early Turnpikes, Roads, Taverns, and Bridges
  29. Searights Tollhouse NHL
  30. Wheeling Suspension Bridge NHL
  31. Smithfield Street Bridge NHL
  32. Mt. Washington Tavern (Fort Necessity NB)
  33. Peterson Tollhouse
  34. "S" Bridge
  35. Dunlap's Cast-iron Bridge
  36. Great Crossings
  37. Madonna of the Trail markers (2)
  38. Rush House Tavern
  39. Uniontown Downtown Historic District
  40. Peter Colley House Tavern
  41. Bowman's Castle
  42. Malden Inn
  43. Century Inn

- Canals & River Navigation**
  44. Saltsburg Historic District and Canal Park
  45. Mt. Etna Iron Furnace Complex
  46. Hollidaysburg Canal Basin
  47. Ohio River
  48. Allegheny River
  49. Monongahela River
  50. Kiskiminetas River
  51. Conemaugh River
  52. Juniata River
- Shipbuilding**
  53. Brownsville Historic Districts
  54. Shousetown
  55. Freedom
  56. Beaver
  57. Elizabeth
  58. Belle Vernon
  59. McKeesport
  60. California
- SOCIETY IN AN INDUSTRIAL CULTURE**

Industrial Wealth
  61. Millionaires Row
  62. South Fork Fishing and Hunting Club
  63. Baker Mansion NHL
  64. Isaac Meason House NHL
  65. Huntingdon Furnace, Iron Master's House
  66. Charles Schwab Estate
  67. Dawson
  68. Linden Hall
  69. Windber Historic District
  70. Gallatin House

Industrial Communities
  71. Allison Company Towns No. 1 and No. 2
  72. Leisenring No. 1 Company Town
  73. Scalp Level
  74. Homestead / Historic District
  75. Cambria City Historic District
  76. Vandergrift
  77. Jeannette
  78. Aluminum City Terrace
  79. Johnstown
  80. Kistler

- INTERACTION BETWEEN PEOPLES AND LANDSCAPE**
  81. Allegheny Portage Railroad NHS
  82. Johnstown Flood National Memorial
  83. Johnstown Flood Museum
  84. Eureka Mine 40
  85. Horseshoe Curve NHL
  86. Gallitzin Tunnels
  87. Monongahela Valley Steel Mills



# NONINDUSTRIAL RESOURCE INVENTORY

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

X. Westward Expansion of the British Colonies and the United States, 1763–1898

This theme embraces the expansion of the British colonies and the United States from the crest of the Appalachians across the North American continent and into the Pacific Ocean, between the Proclamation of 1763 and the end of the Spanish-American War.

C. Military-Aboriginal American Contact and Conflict

1. East of the Mississippi  
1763-1850s  
Bushy Run Battlefield NHL  
Forks of the Ohio NHL

Other resources used under Conflict and Conquest

Fort Ligonier and Bedford

Westward Expansion/Early Settlement

Themes that were used to establish the resources for Westward Expansion/Early Settlement are as follows:

V. Political and Military Affairs, 1783–1860

This theme addresses the related activities during that period in which the United States developed from a weak confederation into a stable and growing nation--a nation capable of coping with most of its major domestic problems, of defending its interests by military action on land and sea, and of holding its own in international diplomacy. There was also a greater democratization of political institutions during this period. This theme also deals with the affairs of government during the three decades preceding the Civil War. The end of this period witnessed the general extension of suffrage to include all white males and expression of the dynamic concept of Manifest Destiny; but these developments were ultimately overshadowed by the increase of sectionalism that led to disunion and the Civil War.

- D. Jeffersonian Period, 1800–1811  
Gallatin House, Friendship Hill NHS

Although no other themes within the thematic framework specifically represent Westward Expansion/Early Settlement, there may be themes that contribute to this. The Whiskey Rebellion is also incorporated into this story element.

Other resources used under Westward Expansion/Early Settlement

David Bradford House NHL; Forks of the Ohio NHL; Epsy House NHL; West Overton; and Somerset Historic Center

Transportation Revolution

The themes that were used to establish resources for the Transportation Revolution are as follows:

XIV. Transportation

This theme covers the transportation of persons and goods by land, water, air, and space, encompassing vehicles, vessels, roads, canals systems, and structures used as well as the history of the activities themselves.

- A. Early Turnpikes, Roads, and Taverns  
East of the Mississippi

Searights Toll House NHL

- B. Ships, boats, lighthouses & other structures

None were listed as NHLs but for the alternative Brownsville Commercial and Northside Historic Districts were listed for shipbuilding; Forks of the Ohio NHL was listed as the most suitable place to interpret river transportation.

- C. Canals

None were listed as NHLs but for the alternatives Saltsburg and Mt. Etna were listed.

- E. Railroads

Allegheny Portage Railroad NHS  
Horseshoe Curve NHL  
East Broad Top NHL

- G. Autos, Buses, Wagons, and Highways

None were listed as NHLs but Bedford Historic District was listed for the alternative as being significant for the PA turnpike and the Lincoln Highway.

VIII. Technology

This theme embraces the development of processes, devices, structures, and tools resulting from the application of scientific principles. It encompasses the lives and works of engineers, builders, inventors, technicians, and the specialized techniques by which they have executed their works.

- B. Transportation

Allegheny Portage Railroad NHS  
Horseshoe Curve NHL

## Society in an Industrial Culture

The themes that were used to establish resources for society in an industrial culture are as follows:

### XXX. American Ways of Life

This theme treats the social structure of people within the present territory of the United States. Included are the lifeways of various strata of the American people over time. Here are assigned areas depicting in representative fashion significant economic, social, occupational, regional, ethnic, and religious groups.

#### C. Industrial Towns

None were listed as NHLs, but the following resources were listed in the alternative: Cambria City Historic District, Allison Mine and Company Towns No. 1 and No. 2, Leisenring No. 1, Homestead Historic District, Vandergrift, and Windber and Scalp Level/ Mine 40 Historic Districts

#### E. Ethnic Communities

None were listed as NHLs, but the following resources were listed in the alternatives: Cambria City Historic District and Homestead Historic District

#### F. Industrial Wealth of the Last Half of the 19th Century

None were listed as NHLs, but the following resources were listed in the alternatives: Millionaires' Row (Pittsburgh), and South Fork Fishing and Hunting Club Historic District

Other (listed) subthemes that could potentially be interpreted at the hub or spokes are as follows:

- I. Domesticity and Family Life
- J. Occupational and Economic Classes

## American Labor History

The themes that were used to establish resources for this story element are as follows:

### XXXI. Social and Humanitarian Movements

This theme is concerned with the efforts of individuals and groups to reshape society or social institutions in accordance with preconceived ideals and to rectify or relieve disabilities under which portions of the population suffer.

#### C. Women's Rights

#### H. Labor Organizations (labor rights)

None were listed as NHLs and although this story element is not represented as a primary hub focus, it would be interpreted at a number of resources, including but not limited to Homestead Historic District, Homestead/Carrie Furnaces, Cambria City Historic District and Cambria Iron Company NHL.

## Industrialization

The themes that were used to establish resources for industry are as follows:

### XII. Business

This theme is concerned with the development of commerce, industry, and domestic and international trade within the United States. Included are practices, methods, organizations, and techniques associated with these activities.

#### A. Extractive or Mining Industries

##### 1. Iron and Ferro Alloys

None were listed but Mt. Etna was listed for the alternatives.

##### 3. Other Metals and Minerals

None were listed but the following resources were listed for the alternatives and are grouped with project team established subfacets:

- a. Coal: Windber
- b. Coke: Shoaf
- c. Steel: Homestead/Carrie Furnace and Cambria Iron Company NHL
- d. Aluminum: New Kensington Research Laboratory



- B. Manufacturing Organizations
  - 2. Transportation Equipment
    - None were listed, but the following resources were used for the alternatives:
      - a. Railroading: Railroaders Memorial Museum
      - b. Steamboat building: Brownsville Commercial and Northside Historic Districts
  - 4. Fabricated Metal and Glass Products
    - None were listed, but the following resource was used for the alternatives:
      - a. Glass: Westmoreland Glass Company
  - 9. Other
    - None were listed, but the following resource was used for the alternatives:
      - a. Brickmaking: Harbison-Walker Refractories Company, Mt. Union

#### XVIII. Technology (Engineering and Invention)

(see theme concept above)

- C. Energy Conversion, Utilization and Distribution
  - None were listed, but Westinghouse was used for the alternatives.
- G. Industrial Production Processes (Including Agriculture)
  - See resources listed under XII. Business, above

#### Interaction Between People and the Landscape

At this time there are no specific themes that represent this story element in the current edition of the thematic framework. However, the National Park Service's thematic framework is currently being revised and themes of this nature may be incorporated. There are several themes and subthemes under the current edition that could fall under this story element: Technology, Business, and Industrial Wealth. The thematic framework also addresses Conservation of Natural Resources as a subtheme but focuses more on the establishment and development of the conservation movement. Public Health Through Pollution Control is a facet that may also fall under this story element. Although not addressed in the current edition of the thematic framework, environmental degradation and natural and managed recovery are topics that can also be interpreted within this story element.

## APPENDIX F: CRITERIA FOR HUB SELECTION

In the selection of hubs for the alternatives, the team evaluated a number of specific site characteristics. These characteristics included significance of the resource, the resource's relationship to the specific story element, the existence of a visitor-ready facility, present and potential interpretive opportunities, access to the region's major transportation arteries, and proximity to spokes related to the specific story elements that the hub represented.

### ALTERNATIVE 1

#### Conflict and Conquest

Fort Necessity National Battlefield preserves and interprets the reconstructed Fort Necessity, the battlefield, Jumonville Glen, the site of George Washington's first victory, and the grave of Major General Edward Braddock, commander of the abortive British campaign against Fort Duquesne. All of these sites are related to the beginning of the French and Indian War. This internationally significant conflict began in western Pennsylvania as a struggle between France and Great Britain over control of the headwaters of the Ohio River. Britain's victory effectively eliminated France as an imperial power in North America. It also was the site that launched the military career of George Washington. This National Park Service site has a visitor center and an interpretive program, and is located on U.S. 40, one of the region's major highways. Fort Necessity is on the proposed central route of the Industrial Heritage route. Two of the three spokes associated with this hub are also on this route. The remaining site is immediately adjacent to the route.

#### Westward Expansion/Early Settlement

Friendship Hill National Historic Site preserves and interprets the home of Albert Gallatin, the secretary of the treasury under President Thomas Jefferson and an early advocate of settlement and industrial development in the upper Ohio Valley. The Gallatin home has

been restored and is currently used as a visitor center and for interpreting Gallatin's life. The site includes the historic gazebo that overlooks the Monongahela River. This linkage between the home and the river symbolizes Gallatin's aspirations to make western Pennsylvania a major factor in industry and commerce between the Atlantic seaboard and the developing west.

Friendship Hill is adjacent to the central route of the Industrial Heritage route. A number of the spoke sites associated with this story element are on the proposed central route.

#### Transportation Revolution

Allegheny Portage Railroad National Historic Site (NHS) preserves and interprets the remaining cultural resources associated with the operation of the railroad. These include the Lemon House, the tavern located at the summit of incline 6, the Skew Arch Bridge, the ruins of Engine House 6, and the reconstructed rail track on the incline. The Portage Railroad was built as a technological solution to the problem of providing transportation over the Allegheny Front. The Allegheny Portage and the Pennsylvania Main Line Canal placed western Pennsylvania in the heart of a national and international trade network.

It also is an excellent representation of the technological innovation that characterized the transportation revolution of the antebellum United States. This period witnessed a dramatic shift from transportation dependent on human and animal power to large-scale mechanized transportation systems.

Allegheny Portage Railroad NHS is a National Park Service unit with visitor-ready facilities that include a visitor center, interpretive programs, and trails linking the visitor center to the park's other resources. The park is on the proposed central route of the Industrial Heritage Route and near many other spoke sites that relate to this story element. A number of these sites are also on the heritage route.

#### Industrialization/American Labor History

Homestead/Carrie Furnace includes the remaining structures of the giant Homestead Steel Mill and the community of Homestead itself. The mill and the community were at the epicenter of the Homestead Steel Strike of 1892, one of the landmark strikes in American labor history. Homestead also illustrates the vast scope of the American steel industry at its height and the impact that industrialization had on community development. The site currently does not have a visitor's facility nor is it on the proposed heritage route at this time. However, the vital role that Homestead played in the development of western Pennsylvania's

industrial infrastructure makes it the most appropriate hub for this story element. No other regional resource related to this story element has a visitor-ready facility. Few convey the extent of the region's steel-producing facilities. Each of the three alternatives proposes adaptive reuse of an existing structure onsite for use as a visitor facility.

### **Society in an Industrial Culture**

Cambria City provides an excellent illustration of the evolution of an industrial working class community. The Cambria City Historic District retains a number of structures related to the city's development as an industrial community. Cambria City's proximity to the Cambria Iron Company's lower works offers a particularly important interpretive linkage between work and community. An existing, yet to be determined structure, would be used for a visitor facility. Johnstown is on the proposed central route of the Industrial Heritage Route. A number of the spokes related to this story element are on the route or are adjacent to it.

### **Interaction Between People and the Landscape**

Johnstown Flood National Memorial preserves and interprets the stories and remaining cultural resources associated with the South Fork Dam and Lake Conemaugh, the source of the devastating flood that gutted Johnstown on May 31, 1889. These resources include the Unger House, the residence of the manager of the South Fork Fishing and Fishing Club, the former lakebed, and the remains of the dam abutments. No site in the region equals this memorial as a venue for interpreting the unforeseen consequences of man's modification of his environment. The combination of an ill-maintained dam and the decades of timbering that severely reduced the area's watershed escalated a normal pattern of spring flooding into a monumental human tragedy.

This National Park Service unit has visitor-ready facilities, including a visitor center and an interpretive program, including a film depicting the event. The memorial is on the proposed central route of the Industrial Heritage Route, and is near a number of the spoke sites related to this story element. Many of these sites are also on the proposed central route.

## **ALTERNATIVE 2**

### **Cambria Iron Company**

The Cambria Iron Company was founded in Johnstown in 1853. Cambria installed a three-high rolling mill for rolling rail iron. This technology allowed Cambria to compete successfully with the British rail manufacturers who had, to that point, dominated the American market. Cambria was the sixth iron plant in the country to install a Bessemer converter, which allowed the plant to begin production of steel rails. In 1876, Cambria led the nation in the production of iron and steel rails. The works offers the best example in the region of the maturation of the iron industry and the transition to the modern American steel industry.

Cambria Iron Company is a national historic landmark. The plant does not have a visitor-ready facility, but several structures onsite could be adapted for reuse as a visitor facility. Cambria is on the proposed central route for the Industrial Heritage Route.

### **Homestead/Carrie Furnace**

See alternative 1.

### **Connellsville**

Connellsville was the center of the largest coke-producing region in the country. Thousands of coke ovens dotted the landscape in the Connellsville coke region. Many of these stand today. Connellsville emerged as the best possible resource to serve as the hub for this story element. No other site is as centrally located, has the name recognition associated with the coke story, or enjoys similar access to major transportation arteries. Rehabilitation of a historic structure is recommended for a visitor center and interpretive facility. Connellsville lies within the proposed central route of the Industrial Heritage Route. It is near many of the sites selected as spokes for this story element. Also, the Pennsylvania Historical and Museum Commission, in the study, *Bituminous Coal and Coke Resources of Pennsylvania, 1740-1945*, discusses the national significance of the Connellsville coke region.



## **ALTERNATIVE 3**

### **Mt. Etna**

The Mt. Etna Iron Plantation began operations in 1807. This works became one of the most important in the Juniata region iron industry. The site contains a remarkable collection of cultural resources related to early iron production and the function of an iron plantation. The site also includes the remnants of the Pennsylvania Main Line Canal prism and one canal lock. Interpretation at Mt. Etna would enable visitors to see and experience the many elements that contributed to this plantation's operation and its important linkage to the Main Line Canal. Mt. Etna emerged as the best hub for this story element, based on its extensive resource collection and its historic link with the canal and the Allegheny Portage Railroad. An existing structure onsite would be adaptively

reused as a visitor center. Interpretation of the site would be linked with that at Allegheny Portage Railroad National Historic Site. Mt. Etna lies within the proposed central route of the Industrial Heritage Route.

### **Connellsville**

See the description under alternative 2.

### **Cambria Iron Works**

See description under alternative 2.

### **Homestead/Carrie Furnace**

See description under alternative 1.

## APPENDIX G: RESOURCE DESCRIPTION FOR ALTERNATIVES

The resources listed in the alternatives for this study are described below. The descriptions include information related to location, ownership, proposed use, and representation of story elements. The national register status of these resources is described in appendix H. Sources from which the descriptions and accompanying information were taken are included in the Bibliography.

### ALCOA ALUMINUM RESEARCH LABORATORIES

**Location:** New Kensington, Westmoreland County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 2

**Resource and Site Description:** (Research lab was in operation from 1929-1980s; New Kensington Works in operation from 1891-1971) The Alcoa Aluminum Research Laboratories are an extraordinary resource representing not only the research and development for improving Alcoa's production, but also the many uses for aluminum evidenced by its applications throughout the building itself. The two-story neoclassical and art deco style building features a variety of aluminum details, including: railing/parapet walls, gates and doors, stair railings, light fixtures, heating grates, aluminum pipes, and an elevator. The building also contains original chairs desks and bookcases made of aluminum. The building is situated in a park-like setting overlooking the city and the Allegheny River valley.

#### Representation of Story Elements:

*Industrialization* — The Alcoa Aluminum Research Laboratory represents the technological innovations of Charles Martin Hall, who discovered a way to make aluminum commercially applicable and enforced the company's continued commitment to research for new applications. Alcoa represents monopolization of the aluminum industry, which came about first through its original patent protection, and secondly through the company's vertical integration.

*Society in an Industrial Culture* — European immigrants or native born children of

immigrants provided much of Alcoa's workforce of which, with little success, Alcoa attempted to Americanize.

### ALLEGHENY FURNACE AND BAKER MANSION

**Location:** Altoona, Blair County, PA

**Ownership:** The Allegheny Furnace and onsite structures are owned by the Women's Club of Altoona; Baker Mansion is owned by the Blair County Historical Society

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (In operation from 1811-1884) Although restored with mortar in 1939, the Allegheny Furnace is in good condition and together with an office/ storeroom building onsite, represents a portion of an early iron plantation. The Baker Mansion is on a hillside adjacent to the furnace site. It is in immaculate condition and is an excellent example of Greek Revival architecture. The furnace and mansion are in a residential area along a busy street in Altoona.

#### Representation of Story Elements:

*Industrialization* — Allegheny Furnace represents early iron technology, including the fuel conversion from charcoal to coke. The mansion also represents the wealth gained from a highly successful iron business.

*Transportation Revolution* — Allegheny Furnace used the Pennsylvania Main Line Canal for shipping.

### ALLEGHENY LUDLUM CORPORATION; VANDERGRIFF PLANT AND TOWN

**Location:** In Vandergrift, approximately 40 miles northeast of Pittsburgh along the Kiskiminetas River, Westmoreland County, PA

**Ownership:** Allegheny Ludlum Corporation

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 3

**Resource and Site Description:** (Plant in operation, under various ownerships, from 1895-present) Originating as the Apollo Iron and Steel Company, the Vandergrift Works changed hands a number of times and was part of USX for over 80 years. Recently acquired by Allegheny Ludlum, the plant has been significantly updated to accommodate the needs of the 21st century but still features a number of intact early resources including the sheet mill, an octagonally shaped wooden pumphouse, hospital, and the former company office building. The town of Vandergrift was an Olmsted-designed community complete with curved streets, grassy medians, and public parks. The community is very much intact today, maintaining many of its uncompromised turn-of-the-century Victorian homes. The plant is adjacent to the Kiskiminetas River and is surrounded by the town of Vandergrift, established among rolling hills.

**Representation of Story Elements:**

*Industrialization* — Allegheny Ludlum represents the technological innovations of a turn-of-the-century iron and steel mill and its transitions into the 21st century.

*Society in an Industrial Culture* — Vandergrift was a professionally planned industrial community that was built by the owners of Apollo Iron and Steel and subsequently turned over to the workers.

**ALLEGHENY PORTAGE RAILROAD  
NATIONAL HISTORIC SITE**

**Location:** Off U.S. 22, 2 miles east of Cresson, Pennsylvania, approximately 6 miles southwest of Altoona, Blair County, Pennsylvania

**Ownership:** National Park Service

**Proposed Use of Resource:** Hub resource for alternative 1

**Resource and Site Description:** Allegheny Portage Railroad National Historic Site includes a visitor center; remnants of incline planes 6, 8, 9, and 10; stone culverts; stone railroad ties; a reconstruction of the engine house at the summit; the Skew Arch Bridge; and Staple Bend Tunnel, the first railroad tunnel constructed in the United States. The Lemon House was constructed by Samuel Lemon about 1834 and served as his home, tavern, and business office. Planning efforts are underway, which call for the

restoration and rehabilitation of the Lemon House structure.

**Representation of Story Elements:**

*Transportation Revolution* — Allegheny Portage Railroad National Historic Site is significant along with the Pennsylvania Main Line Canal for its early role in the efficient transport of goods and people between Philadelphia and Pittsburgh. Together, the Canal and Portage Railroad played a major role in affecting natural, cultural, and economic factors on a regional scale. Transport of goods from the interior allowed Philadelphia to compete with New York City for the commerce of the emerging Old Northwest.

**ALLISON MINE AND COMPANY TOWNS  
NOS. 1 AND 2**

**Location:** Approximately 10 miles northwest of Uniontown, Fayette County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (Constructed in 1904, date of operation unknown)

Both Allison Mine and Company Towns No.1 and No. 2 have a variety of intact semidetached and single family housing as well as several managers houses with good integrity. Extant from the mine and coke works are the company store, several brick buildings, a large tippie, and rectangular coke ovens in varying conditions. The towns are on either side of the valley where the mine and coke works are located. The ovens are in deteriorating condition and are overgrown with vegetation.

**Representation of Story Elements:**

*Industrialization* — Allison represents the technological application of rectangular coke ovens in the early 20th century.

*Society in an Industrial Culture* — Company Towns No. 1 and No. 2 are excellent examples of efforts (by the W.J. Rainey Coke Company) to provide greater variety and better living conditions for company workers.



## ALVERTON MINE, COKE WORKS, AND TOWN

**Location:** Approximately 3 miles north of Scottdale, and 12 miles south of Greensburg, Westmoreland County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource when combined with the Scottdale offices for alternative 3 (the coke ovens are fired as part of the annual Scottdale Coal and Coke Heritage Festival)

**Resource and Site Description:** (In operation from 1878-1923; and 1950-1983) The Alverton Coke Works consists of two early beehive ovens and eight single by-pass ovens built in the 1970s, all of which are in good condition. In addition to several company-built homes, the town has an architecturally impressive hotel (ca. 1900) which, although somewhat altered, retains some integrity. The coke ovens are adjacent to railroad tracks, separating them from the town, and coal and coke refuse piles exist near the ovens.

### Representation of Story Elements:

*Industrialization* — Alverton represents the technological innovations of the coking process, both old and new, including efforts to meet clean air standards.

## BEDFORD SPRINGS HISTORIC DISTRICT

**Location:** One and one-half miles south of the town of Bedford, Pennsylvania, Huntingdon County. Situated in the midst of the Allegheny Mountains, the narrow valley is east of the Cumberland Valley and west of Evitts Mountain.

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The Bedford Springs Historic District consists of the Bedford Springs Hotel, a mineral springs resort established ca. 1806, and associated buildings, structures, and recreational facilities sited on 770 acres of flat and hillside, partially wooded land in the valley formed by Shober's Run.

### Representation of Story Elements:

*Westward Expansion/Early Settlement* — Since its organization in the early 19th century, the Bedford Springs Hotel has been one of

Pennsylvania's major summer resorts, distinguished by an assortment of mineral springs, distinctive and spacious hotel buildings and amenities, and a clientele of well-known figures in the political and social worlds. Retaining considerable architectural integrity, the Bedford Springs Historic District is an important document of American lifestyle, architecture, and history.

## BROWNSVILLE, PENNSYLVANIA

**Location:** Fayette County, Pennsylvania

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** Brownsville's two historic districts are the Commercial Historic District and the Northside Historic District. The Commercial Historic District includes 55 contributing structures erected primarily between 1900 and 1930, but it also includes four structures that date from ca. 1835 to ca. 1880. One of these buildings dates from the heyday of the National Road era. The Dunlap's Creek Bridge, America's first cast-iron bridge constructed to serve the National Road, also resides within the district.

The Northside Historic District includes 58 antebellum buildings that reflect Brownsville's commercial prominence during the National Road era. Northside also was the city's premier residential district when Brownsville again prospered as the commercial and transportation center for the Klondike coal and coke fields.

Brownsville also is the site of Bowman's Castle. This architecturally and historically significant site resides on the Fort Burd and ranks among America's most noted castle structures.

### Representation of Story Elements:

*Westward Expansion/Early Settlement* — Brownsville and many of its historic structures reflect the city's important role in America's westward expansion in the early 19th century. Brownsville owed much of its early growth and prosperity to its location on the National Road, the only federally funded and constructed transportation improvement of the antebellum era. The National Road was one of the most important links between the Atlantic seaboard and the trans-Appalachian west. Its later development illustrates the evolution of one of western Pennsylvania's

important transportation and commercial centers.

*Transportation Revolution* — Brownsville was equally important as a center for steamboat construction between 1815 and 1870. Brownsville boatyards built hundreds of steamboats for service on the West's extensive network of navigable rivers. The city's key location at the junction of the National Road and the Monongahela River made it an important linkage between overland and river trade.

## **BUSHY RUN NATIONAL HISTORIC LANDMARK**

**Location:** Bushy Run Road, Jeanette, Westmoreland County

**Ownership:** Commonwealth of Pennsylvania

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** Bushy Run includes a portion of the original battlefield site. This 162-acre Bushy Run Battlefield State Park includes a memorial stone with bronze plaques commemorating the site of the flour bag fort constructed by British troops. A marker on an adjacent hill signifies the site of the graves of the 50 soldiers killed in the battle. The battlefield's environment is unaltered. Major intrusions are excluded.

### **Representation of Story Elements:**

*Conflict and Conquest* — During Pontiac's Rebellion in 1763, British troops led by Colonel Henry Bouquet, on their way to offer relief to starving settlers garrisoned at Fort Pitt, were attacked by a large force of Native Americans. The bloody two-day battle that ensued marked a turning point in the larger conflict that became known as "Pontiac's Rebellion."

## **CAMBRIA CITY HISTORIC DISTRICT**

**Location:** The district, which comprises nearly the entire Cambria City neighborhood, is situated one-half mile northwest of Johnstown's central business district on the south banks of the Conemaugh River.

**Ownership:** Private, public

**Proposed Use of Resource:** Hub resource for alternative 1

**Resource and Site Description:** The Cambria City Historic District is composed of 263 buildings and one structure. Of these, 66 are noncontributing. The vast majority of buildings were constructed between 1890 and 1920. The district is a neighborhood of modest vernacular working-class homes, a small business district, and a notable collection of churches and church-related buildings.

### **Representation of Story Elements:**

*Society in an Industrial Culture* — When the Cambria Iron Company was established in 1852, Cambria City was one of the major neighborhoods laid out to house immigrant laborers who worked the mills and mines. The city became home to successive waves of immigrants who developed a variety of distinctive ethnic and racial institutions, including churches, schools, and associations. The vast majority of residents held jobs in the Lower Cambria Works accessed by two bridges across the Conemaugh River. Cambria City represents the lifeways of thousands of industrial workers throughout western Pennsylvania.

## **CAMBRIA IRON COMPANY, LOWER WORKS**

**Location:** Johnstown, PA

**Ownership:** Private

**Proposed Use of Resource:** Hub resource for alternatives 2 and 3; spoke resource for alternative 1

**Resource and Site Description:** (In operation 1852 to present, under various ownerships) The Cambria Iron Company Lower Works is an exceptional resource representing a model of the early modern iron and steel industry. The Lower Works contains a variety of intact mid- to late-19th century structures, including a blacksmith shop (complete with tools and equipment) and annex; pattern shop; foundry; car shop; and portions of the following: rolling mill, blast furnaces, and associated buildings. Also extant in the Lower Works is the machine shop (ca. 1906), with machinery and equipment in place. The site is located along the Conemaugh River with views to the original support communities of Cambria City and Johnstown.

## Representation of Story Elements:

*Industrialization* — Cambria Iron Company represents many technological innovations of the early modern iron and steel industry, including the transition from early iron plantations to integrated iron and steel production facilities, experimentation with the Kelly Converter, and early conversion to the Bessemer steel process.

*Transportation Revolution* — Cambria Iron Company contributed greatly to the end of America's reliance on British-produced rails through its innovative iron (and later steel) rail production. For a number of years it was the sole manufacturer of rails for the Pennsylvania Railroad.

*Society in an Industrial Culture* — With the growth of the company came the labor force to support it. As evidenced from the many diverse churches throughout the area, immigrants from a variety of European countries and African-American migrants from the southern United States came to seek employment at the Cambria Iron Company.

*American Labor History* — The Cambria Iron Works helps demonstrate the transition from a largely skilled iron-producing workforce to the largely nonskilled industrial workforce found there at the turn of the 20th century. Cambria also played a significant part in the "Little Steel Strike" of 1937.

## CLAIRTON COKE WORKS

**Location:** On the west bank of the Monongahela River, along PA 837 about 4 miles south of Pittsburgh, in Allegheny County

**Ownership:** U. S. Steel

**Proposed Use of Resource:** Spoke resource in alternative 3

**Resource and Site Description:** Clairton Coke Works is a large USX complex. The plant, formerly an integrated steel mill and by-product coke plant, now produces only coke and is the largest by-product coke manufacturer in the world. The plant supplies methane gas (a coking by-product) to the USX Edgar Thomson and Irvin plants via pipelines that parallel the Monongahela River. Clairton is served by a network of rail lines and river barges to haul coal in and coke out of the plant.

## Representation of Story Elements:

*Industrialization* — The by-product ovens at Clairton represent the transition from the beehive coking era concentrated in the Connellsville Coke Region to the by-product era concentrated closer to steel mills.

## CONNELLSVILLE

**Location:** In Fayette County on U. S. 119 approximately 40 miles southeast of Pittsburgh

**Ownership:** Private, public

**Proposed Use of Resource:** Hub resource for alternatives 2 and 3

**Resource and Site Description:** The community contains numerous individually distinguished structures and institutions that reflect the town's role as a center for surrounding mining communities.

## Representation of Story Elements:

*Industrialization* — The coke industry and its relationship to steel production — Connellsville played an important role in the settlement of Fayette County but it is better known for its connection with the coke trade of the Connellsville Coke area. Connellsville coke was renowned for its metallurgical properties and was produced and used by the region's giant steel industry.

## DAVID BRADFORD HOUSE NATIONAL HISTORIC LANDMARK

**Location:** 175 South Main Street, Washington, Washington County, Pennsylvania. Washington is located approximately 25 miles southwest of Pittsburgh at the junction of Interstate 70/79 and U.S. 40.

**Ownership:** Commonwealth of Pennsylvania

**Proposed Use of Resources:** Spoke resource for alternative 1

**Resource and Site Description:** The David Bradford House, built in 1788, was home to David Bradford, Whiskey Rebellion leader, successful and wealthy lawyer whose oratory "incited violence, stirred up talk of secession, and resulted in the Whiskey Rebels robbing the U.S.



Mail." The house is open to the public and maintained by the commonwealth.

#### **Representation of Story Elements:**

*Westward Expansion/Early Settlement* — Western Pennsylvania farmers challenged the government's authority to impose a federal tax on whiskey in 1791. They organized protests in 1792 in the form of attacks against whiskey tax collectors, federal marshalls, and the U.S. Mail. In 1794 Washington declared the rebels traitors and called for federal troops to suppress the protest. The Whiskey Rebellion marked the first true test of federal authority granted under the Constitution.

#### **DAWSON**

**Location:** Approximately 5 miles northwest of Connellsville, along the Youghiogheny River, Fayette County

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (Construction of significant architectural features began in the 1890s) Dawson is known for its architecturally impressive and well-maintained bank building, large homes, and church. The town served as the headquarters for the Washington Coal and Coke Company and also as a centralized location for the company housing of several company mine and coke works. The town is adjacent to the Youghiogheny River and the B&O rail lines.

#### **Representation of Story Elements:**

*Industrialization* — Dawson represents technological innovation in that Sample and James Cochran, residents and founders of the Washington Coal and Coke Company, produced and sold the first Connellsville coke produced in a beehive oven.

*Society in an Industrial Culture* — Dawson represents the contrast between the wealthy company owners and that of company workers through its diversity of housing and architecture.

#### **EAST BROAD TOP RAILROAD NATIONAL HISTORIC LANDMARK (EBT)**

**Location:** Orbisonia, Pennsylvania, lies in the Aughwick Valley and on the Broad Top Mountain in central Huntingdon County. U.S. Highways 22 and 522 and PA 26 provide links to major transportation routes.

**Ownership:** Privately owned

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The East Broad Top Railroad Main Line is 33 miles long. At Mount Union, which served as the northern terminus of the EBT and where links were made with the Pennsylvania Railroad Main Line, stands a railroad yard, enginehouse, and remnants of other associated structures. At Rockhill/Orbisonia, the heart of the EBT, the railyard includes all the equipment necessary to build and maintain rolling stock as well as a roundhouse/turntable complex. All of the buildings remain and contain all of the steam-generated/belt driven machinery, including power line shafts, belting and pulleys, machinery, and tools. EBT is the oldest surviving narrow-gauge railroad east of the Rocky Mountains.

#### **Representation of Story Elements:**

*Transportation Revolution* — The EBT is the most complete and original steam-era railroad in North America. The EBT system and late 19th and early 20th century cultural landscape of the Aughwick Valley and Broad Top Mountain provide all the story elements to tell of the EBTs impact on the industrialization of Huntingdon County and Pennsylvania. In addition, the EBT encompasses all the story elements to tell how railroads affected American transportation.

#### **ESPY HOUSE NATIONAL HISTORIC LANDMARK**

**Location:** East Pitt Street, Bedford, Pennsylvania

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** President Washington stayed overnight at the David Espy residence on October 19, 1794. The next day

Washington ordered General Henry "Lighthorse Harry" Lee to western Pennsylvania to quell the Whiskey Rebellion. The Espy House stands today much as it did 200 years ago.

#### **Representation of Story Elements:**

*Westward Expansion/Early Settlement* — The Whiskey Rebellion was an important event in the nation's early history. Farmers on the western frontier rebelled when the federal government passed a federal excise tax on whiskey. State rights versus Federalism and the possible secession of the western frontier marked this national crisis. The Espy House serves as a reminder of President Washington's western-most stop on his crusade to demonstrate the ability of the government to enforce its own laws.

#### **EDGAR THOMSON PLANT/IRVIN PLANT: MON VALLEY WORKS**

**Location:** Braddock and West Mifflin, respectively, east metropolitan Pittsburgh, Allegheny County, PA

**Ownership:** USX Corporation

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (Edgar Thomson in operation from 1875, and Irvin Plant from 1938; both to present) Although the existence and condition of historic resources, if any, are unknown, the Edgar Thomson Plant represents state-of-the-art steel slabmaking processes that have evolved from the late 19th century integrated iron and steel mill. Site resources include blast furnaces, a basic-oxygen process shop, slab mill, power, and oxygen plants. The Edgar Thomson Plant is along the Monongahela River and is surrounded by the community of Braddock.

The Irvin Plant is a finishing mill that produces rolled sheet metal from the slab products manufactured at the Edgar Thomson Plant.

#### **Representation of Story Elements:**

*Industrialization* — As Andrew Carnegie's first steel plant, the Edgar Thomson Plant represents the emergence of a modern corporation, the technological innovations of the steel industry, and the interindustry relationships between steel, coal and coke, and transportation.

*Society in an Industrial Culture* — Braddock represents not only the development of a steel-based community but also the deterioration of a community due to regional deindustrialization.

#### **ELIZA FURNACE**

**Location:** Vintondale, Cambria County, PA, approximately 15 miles north of Johnstown

**Ownership:** Cambria County Historical Society

**Proposed Use of Resource:** Spoke resource for Alternative 3

**Resource and Site Description:** (In operation from 1846-1848) Although only the furnace remains, Eliza is in excellent condition, complete with the original cast-iron heat exchanger on top. The furnace is well maintained on a site adjacent to the Blacklick River and Ghost Town Trail.

#### **Representation of Story Elements:**

*Industrialization* — Eliza Furnace represents technological innovations through the presence of the cast-iron heat exchanger.

#### **FORKS OF THE OHIO NATIONAL HISTORIC LANDMARK**

**Location:** Point State Park, Pittsburgh, Allegheny County

**Ownership:** Commonwealth of Pennsylvania, administered by Pennsylvania Historical and Museum Commission

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The Forks of the Ohio site includes the Fort Pitt Museum and is surrounded by Point State Park. The only structure that stands as a reminder of Fort Pitt is Pittsburgh's oldest building, Bouquet's Blockhouse. Dated to 1764, the end of Pontiac's Rebellion, it served as a retreat from invading forces.

#### **Representation of Story Elements:**

*Conflict and Conquest* — As part of Pontiac's rebellion, the siege of Fort Pitt began July 28, 1763. Pitt, which normally garrisoned 200 men, had been overwhelmed by nearly

1,200 settlers seeking protection from the Indians. Their food supply was shrinking rapidly and no supplies or communications could get in or out of the fort. The only hope was a relief force, under the command of Colonel Henry Bouquet, that departed Carlisle on July 18, 1763. The British column, after its encounter at Bushy Run, marched to Fort Pitt and arrived with necessary supplies on August 10.

*Transportation* — The Forks of the Ohio also serves as a key place to the development of river transportation in the region, including transportation of industrial goods, ship building, and river transportation to the interior.

## FORT BEDFORD MUSEUM

**Location:** The Borough of Bedford is located at the junction of Interstate 70/76, U. S. 30, and U.S. 220, Bedford County.

**Ownership:** Borough of Bedford, Pennsylvania

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** Fort Bedford Museum, located on the original site of Fort Bedford, contains a model reconstruction of the original fort.

### Representation of Story Elements:

*Conflict and Conquest – Westward Expansion/Early Settlement – Transportation Revolution* — Fort Bedford played a crucial role in protecting the Forbes Road transportation corridor, in securing the lands west of the Blue Mountain, and in encouraging American cultural expansion west of the Atlantic seaboard. Bedford Village was also Washington's headquarters during the Whiskey Rebellion.

## FORT LIGONIER

**Location:** 216 South Market Street, Ligonier, Westmoreland County

**Ownership:** Fort Ligonier Association

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** A reconstruction of Fort Ligonier occupies 80% of the original fort site. The site has been the object of several archeological digs that have uncovered the layout of the original fort.

### Representation of Story Elements:

*Conflict and Conquest* — Fort Ligonier was part of the supply line along the Forbes Road and a final staging area for General Forbe's 1758 campaign at Fort Duquesne.

## FORT NECESSITY NATIONAL BATTLEFIELD

**Location:** Farmington, Fayette County – approximately 8 miles southeast of Uniontown

**Ownership:** National Park Service

**Proposed Use of Resource:** Hub resource for alternative 1

**Resource and Site Description:** Fort Necessity was established to commemorate the beginning of the French and Indian War in America (1754) and the initiation of George Washington's military career. The site includes a re-creation of the circular fort built by Washington's troops at the time of the 1754 battle, the surrounding meadow, and adjacent woods. Braddock's Road established as part of Washington/Braddock's military actions in 1754-55 are also interpreted. The Mount Washington Tavern was built between 1816 and 1818 on land once owned by George Washington and was a stagecoach stop for the Good Intent line. The visitor center introduces visitors to the fort and battlefield and directs them to Mount Washington Tavern.

### Representation of Story Elements:

*Conflict and Conquest* — Fort Necessity represents the struggle of international powers to control the strategic territory at the forks of the Ohio River before the American Revolution.

*Transportation* — Mount Washington Tavern served travelers as a stagecoach stop during the National Road era (1818-1854).



## FRIENDSHIP HILL NATIONAL HISTORIC SITE

**Location:** Along PA 166, in Fayette County, 4 miles north of Point Marion, Pennsylvania and about midway between Uniontown, Pennsylvania, and Morgantown, West Virginia

**Ownership:** National Park Service

**Proposed Use of Resource:** Hub resource for alternative 1

**Resource Site Description:** Friendship Hill National Historic Site preserves the country estate of Albert Gallatin, a Swiss immigrant, who served as treasury secretary under Presidents Jefferson and Madison. Gallatin built his home on a high bluff along the Monongahela River because he believed the rivers were key to the future of commerce and industry in the region. Today, visitors tour the five major sections of the house, walk over trails that follow old farming roads, and visit the grave of Gallatin's first wife, Sophia Allegré.

### Representation of Story Elements:

*Westward Expansion/Early Settlement* — When Gallatin's brick house was built in 1789, Friendship Hill was on the edge of the frontier; the other side of the river was wilderness. Gallatin fostered expansion into the territory through his support of the National Road and the glass business he established at New Geneva. Gallatin brought his family, servants, and skilled workers to western Pennsylvania and thus encouraged others to settle there.

## GREENWOOD FURNACE

**Location:** Approximately 20 miles southeast of State College along PA 305, Huntingdon County, PA

**Ownership:** Owned and maintained by the state of Pennsylvania as Greenwood Furnace State Park

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (In operation from 1834-1904) Greenwood Furnace is a good example of early iron production representing both an intact (albeit reconstructed ca. 1930s) furnace and the ruins of an earlier (ca. 1834) furnace. The site also contains a blacksmith shop, church, and several other associated

structures. In a park setting, the structures are well maintained and readily accessible to the public.

### Representation of Story Elements:

*Industrialization* — Greenwood Furnace represents early iron technology.

## HARBISON-WALKER REFRACTORIES COMPANY

**Location:** Mount Union, Huntingdon County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 2

**Resource and Site Description:** (In operation from 1899-1985) As the first works in the U.S. constructed exclusively for the manufacture of Silica Brick, the Harbison-Walker Refractories Company is an unequaled resource representing an early- to mid-20th century integrated brick refractory. Extant onsite are silica-brick molding and drying works, numerous beehive kilns, associated manufacturing structures and office buildings, ganister quarries with crushing and screening facilities, as well as the remains of supporting railroad facilities. The site is adjacent to the Juniata River amidst quarry sites. The site is currently under the threat of demolition.

### Representation of Story Elements:

*Industrialization* — Originally owned by W.H. Haws Company, a Johnstown refractories manufacturer, the property was acquired in 1900 by Harbison-Walker. Harbison-Walker's primary customer was Andrew Carnegie's iron mills, whose development and success was key to that of the refractories. The Harbison-Walker facility was known for its technological innovations of hand-molded and later machine-pressed manufacturing of silica shapes.

*Transportation Revolution* — Both the PRR and EBT served the plant for shipping to customers and to supply coal for manufacturing, respectively.

## HOMESTEAD/CARRIE FURNACES AND HOMESTEAD HISTORIC DISTRICT

**Location:** Southeast metropolitan Pittsburgh along the south side of the Monongahela River, Allegheny County

**Ownership:** Public; private

**Proposed Use of Resources:** Hub resources for alternatives 1, 2, and 3

**Resource and Site Description:** Although the Homestead Steel Works is being dismantled and demolished, the water tower, pumphouse, and big shop are extant and are in moderate to good condition. The water tower and pumphouse are located at the Pinkerton Landing site, a key component of the Homestead Lockout/Strike of 1892. (The Homestead Historic District also includes the Bost building where the 1892 strike committee held meetings and where the numerous members of the press who covered the lockout/strike gathered.

The Carrie Furnace site is across the Monongahela River from the Homestead Mill site and was integral to Homestead steel production. Extant structures at the Carrie Furnace site include blast furnaces, cast house, ore yard and bridge, and other associated structures. All the structures are in moderate to poor condition. The Carrie Furnace site overlooks the Homestead Mill site and is becoming overgrown with grasses and other vegetation. Two railroad bridges, one active, connect the two sites.

The Homestead Historic District emphasizes the vernacular housing stock, turn-of-the-century commercial buildings, and a full sampling of churches that indicate how those who worked in the mills lining the Monongahela River organized their community.

### Representation of Story Elements:

*Industrialization – Society in an Industrial Culture – Interaction Between People and the Landscape – Industrialization* — Homestead offers the opportunity to tell several of the stories related to the development of the steel industry in western Pennsylvania including labor history, technology, and the emergence of big business.

## HORSESHOE CURVE NATIONAL HISTORIC LANDMARK

**Location:** Approximately 5 miles from Altoona, Blair County, Pennsylvania, of PA 4008

**Ownership:** Altoona Railroaders Memorial Museum

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The Horseshoe Curve National Historic Landmark includes a visitor center, gift shop, a single-track funicular, and the railroad tracks of the landmark. The challenge of carrying the Pennsylvania Main Line over the steep Allegheny Mountains resulted in the construction of the "Curve." This huge loop in the westward expansion of the railroad was carved out of the mountainside entirely by men using picks, shovels, and horses.

### Representation of Story Elements:

*Transportation Revolution* — Carved out of the mountainside entirely by hand and overcoming the formidable barrier of the Allegheny Front, the Horseshoe Curve is considered to be an engineering marvel.

## HUNTINGDON FURNACE

**Location:** Approximately 25 miles northeast of Altoona, Huntingdon County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 3.

**Resource and Site Description:** (In operation from 1805-1880s) Huntingdon Furnace is an exceptional resource representing the vast extent of a large-scale iron community, including the plantation, comprised of the furnace, company store, office, worker's house and iron master's house; the farm with a grist mill; and ore mines nearby. The site and its structures are maintained as a farm today in a rural setting. The furnace is in excellent condition and represents original construction with unmortared stones, tie rods, and starplates still intact.

### Representation of Story Elements:

*Industrialization* – Huntingdon Furnace represents early iron technology and original construction techniques.

*Society in an Industrial Culture* — Huntingdon Furnace represents the integration of early iron plantation and community/farm life.

### **ISAAC MEASON HOUSE NATIONAL HISTORIC LANDMARK**

**Location:** Approximately 5 miles south of Connellsville on PA 119

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (Constructed in 1802) The Isaac Meason House is an extraordinary example of high-style Georgian architecture and represents a portion of an early 19th century iron plantation, namely the iron master's complex. The site and the structures (house, blacksmith shop, kitchen, and barn) are well maintained and restoration efforts have been taken to preserve integrity. Neighboring mining activities may threaten the stability of the structures.

#### **Representation of Story Elements:**

*Industrialization* — The Isaac Meason House represents, in part, the development of an early iron plantation. It also represents the prosperity of the iron master.

### **JOHNSTOWN FLOOD NATIONAL MEMORIAL**

**Location:** Junction of U.S. 219 and PA 869 in Cambria County

**Ownership:** National Park Service

**Proposed Use of Resource:** Hub resource for alternative 1

**Resource and Site Description:** The Johnstown Flood National Memorial includes a visitor center and parking lot, exhibits, amphitheater, the Unger House, trails, and the remains of the South Fork Dam abutments, spillway, sluice culvert, and historic lakebed.

#### **Representation of Story Elements:**

*Interaction Between People and the Landscape* — A combination of natural and man-produced environmental factors made

the devastation of the Johnstown Flood inevitable. The valley walls from the dam to Johnstown are steep and served as a funnel that directed the wall of water and debris on its relentless journey to Johnstown below. Forests that had served to hold water in the soil had been cut down for development in Johnstown and the surrounding communities. As a result, spring floods became a regular occurrence. Spring rains coupled with the continued neglect and/or mismanagement of the South Fork dam resulted in the disastrous Johnstown Flood of 1889.

### **LEISENRING NO. 1 COMPANY TOWN**

**Location:** Approximately 3 miles southwest of Connellsville, Fayette County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 3

**Resource and Site Description:** (Town constructed beginning in 1880; mine and coke works in operation from 1880-1950s) One of the largest company-built towns in the county, Leisenring is exemplary of late 19th-century coal patch communities with numerous intact structures, including semidetached, single family and manager type housing; a company store, well maintained and still in use; and a church. Adjacent to the company store is a battery of beehive ovens in varying condition and heavily overgrown with vegetation. No other coking operation structures exist.

#### **Representation of Story Elements:**

*Industrialization* — Leisenring represents the beehive oven technology of the late 19th-century. *Society in an Industrial Culture* — Leisenring represents a good example of a late 19th-century coking community.

### **MILLIONAIRES' ROW**

**Location:** Ridge Avenue, North Side, Pittsburgh, Allegheny County

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 1



**Resource and Site Description:** Ridge Avenue (Millionaires' Row) is a small neighborhood made up of homes of some of the city's wealthiest residents at the turn of the 20th century, including Byers-Lyons House (1898), home of Alexander M. Byers, founder of A.M. Byers Company, a steel tubing manufacturer; B.F. Jones House (1910), home of Benjamin Franklin Jones, cofounder of Jones and Laughlin Steel Company; H.W. Oliver House (1871), home of Henry W. Oliver, who developed the Mesabi Range region as a source for iron ore for the blast furnaces of the Pittsburgh area; W.P. Snyder house (1911), home of a steel industry magnate.

#### **Representation of Story Elements:**

*Society in an Industrial Culture* — Millionaires' Row demonstrates the high-quality housing occupied by the region's industrial barons. It offers a good comparison between owner and worker housing in the region.

#### **MONESSEN WORKS, WHEELING-PITTSBURGH STEEL COMPANY**

**Location:** In Monessen, approximately 30 miles south of Pittsburgh, Westmoreland County, PA

**Ownership:** Private — Part ownership by Sharon Steel and part by Bethlehem Steel

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (In operation from 1902-1986 with sporadic and limited production through the present) The Monessen Works is an exceptional and very intact resource representing an early- to mid-20th century Monongahela Valley steel mill. Extant resources include by-product coke ovens, blast furnaces (two, ca. 1916), basic-oxygen process shop, various mills (bar, wire, rod, rail, and rolling), an architecturally ornate office building, and other associated structures. The complex sprawls over nearly 300 acres along the Monongahela River and is surrounded by the town of Monessen.

#### **Representation of Story Elements:**

*Industrialization* — Monessen represents the technological evolution of a progressive steel mill through its presence of various

intact mill structures, built as early as 1902 and as late as 1983.

*Society in an Industrial Culture* — The town of Monessen represents an industrial boomtown of the early 20th century, with the bulk of its population consisting of immigrants and second-generation eastern and southern Europeans.

#### **MT. ETNA IRON FURNACE COMPLEX AND TOWN**

**Location:** Approximately 20 miles northeast of Holidaysburg, Blair County, PA

**Ownership:** The furnace has been stabilized and is owned by the Blair County Historical Society; all other resources are under private ownership. The site is currently being considered through legislation as an addition to the Allegheny Portage Railroad National Historic Site.

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 2; hub resource for alternative 3

**Resource and Site Description:** (In operation from 1808-1875) Mt. Etna is an exceptional resource representing a largely self-contained iron plantation with a variety of intact stone structures, including a furnace, tenant housing, barn, iron master's house, and residences. The site is in a very rural area adjacent to the Juniata River. Some of the structures are being maintained and are currently occupied, whereas others are overgrown with vegetation.

#### **Representation of Story Elements:**

*Industrialization* — Mt. Etna represents the technological innovations and development of an early charcoal iron plantation.

*Transportation Revolution* — Mt. Etna was one of the first companies to use the Pennsylvania Main Line Canal for shipping pig iron to Pittsburgh.

*American Labor History* — Mt. Etna's workforce represents the need in the early iron industry for skilled industrial laborers, who participated directly in setting production quotas and worked closely with management in the operation of the iron works.

## RAILROADERS MEMORIAL MUSEUM

**Location:** Altoona, PA

**Ownership:** Railroaders Memorial Museum, Inc., owns the master mechanic's building

**Proposed Use of Resource:** Spoke resource for alternatives 2 and 3

**Resource and Site Description:** The master mechanic's building served various purposes for the Pennsylvania Railroad from 1882-1984. The building is structurally sound, maintains a high degree of integrity, and along with a portion of its 12th Street carshops site is currently under development for the new Railroaders Memorial Museum. It is only a small piece remaining from the Altoona Works — three other major railroad building complexes remain in addition to the 12th Street car shops: South Altoona foundry, the Altoona car shops, and the Juniata shops. All of the complexes contain, to some degree, extant structures and equipment. The complexes are spread throughout Altoona.

### Representation of Story Elements:

*Transportation Revolution* — The Pennsylvania Railroad was a leader in the rail transportation industry for nearly 80 years. Much of this can be attributed to the technological innovations, research, and efforts to standardize the industry that took place at the Altoona Works.

*Society in an Industrial Culture* — With its rapid population growth between 1854 and 1890 (from 2,500 to 30,260), Altoona quickly became a "railroad town," housing a diverse culture of immigrant workers and their families.

## SALTSBURG HISTORIC DISTRICT

**Location:** Conemaugh River, Plum Alley, Walnut Alley; Saltsburg, Indiana County

**Ownership:** Private, public

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The Saltsburg Historic District represents the oldest part of

Saltsburg Borough and includes most of the properties fronting on or west of Salt Street. The district may best be characterized as a 19th and early 20th-century residential community with a small commercial district and several church buildings, a community where vernacular architectural styles predominate. The district is both commercial and residential in nature but with residential properties far outnumbering commercial. The district contains 150 buildings, about half of which date to the 19th century.

### Representation of Story Elements:

*Westward Expansion/Early Settlement* — The district offers an important example of small town development stimulated by the Pennsylvania Canal and Railroad. It was also important as a commercial center for the local area.

*Transportation Revolution* — Saltsburg helps tell the story of canal transportation during the Transportation Revolution.

## SCOTTTDALE (FRICK) OFFICES

**Location:** Approximately 15 miles south of Greensburg, west of route 119, Westmoreland County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (Constructed in 1880 and in 1904; in use through 1940s) The two Scottdale buildings served as the offices for the H.C. Frick Coke Company and were built in 1880 and 1904. The brick structures are Queen-Anne and Georgian Revival styles respectively and maintain a high integrity with few alterations. The buildings are next-door to each other and are within the Scottdale business district.

### Representation of Story Elements:

*Business* — The site represents the first and second general offices of the H.C. Frick Coke Company (formed by Frick, Andrew and Thomas Carnegie and Henry Phipps) and the rise of an oligopoly in the coke industry.

## SEARIGHTS TOLLHOUSE NATIONAL HISTORIC LANDMARK

**Location:** Searights, Pennsylvania, is approximately 3 miles northeast of Uniontown, Fayette County, Pennsylvania, on U.S. 40.

**Ownership:** Pennsylvania Historical and Museum Commission and managed by the Fayette County Historical Society

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** This hexagonal brick tollhouse, which was built in 1835, is one of only two remaining National Road tollhouses in Pennsylvania. The restored tollhouse features a living room, a kitchen, and a tollkeeper's office. An interpretive sign with rates of road tolls is posted on the tollhouse.

### Representation of Story Elements:

*Transportation Revolution* — Westward Expansion/Early Settlement – Searights Toll House was constructed to collect tolls on the Pennsylvania section of the National Road after that road was turned over to control of the individual states through which it passed.

## SHOAF MINE, COKE WORKS, AND COMPANY TOWN

**Location:** Approximately 7 miles southwest of Uniontown, Fayette County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternatives 1, 2, and 3

**Resource and Site Description:** (In operation from 1904-1972; historically significant from 1904-1943) Shoaf is a well-preserved resource exemplifying the early 20th-century coke industry of western Pennsylvania. The processing site includes over 300 intact block and beehive ovens, several support buildings, larries, and other equipment. A portion of the processing site is currently in use, however much of the site is becoming overgrown with vegetation. The adjacent company town includes a large number of semidetached homes, with good integrity. Shoaf (mine, coke works, and company town) is one of few integrated coking facilities that was actually built by H.C. Frick Coke Company.

### Representation of Story Elements:

*Industrialization* — Shoaf represents the technological innovations of an early 20th-century beehive coking operation, including the adaptation of mechanized operations.

*Society in an Industrial Culture* — Shoaf company town maintains much of its original character, as very few noncontributing structures exist. It is exemplary of an early 20th century coal patch town.

## SOUTH FORK FISHING AND HUNTING CLUB HISTORIC DISTRICT

**Location:** In Saint Michael, approximately 10 miles northeast of Johnstown, Cambria County, PA

**Ownership:** Four of the structures (two cottages, the clubhouse, and an annex) within the historic district are owned by the South Fork Fishing and Hunting Club Historical Preservation Society; other structures are privately owned.

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** (Constructed during the 1880s) The intact cottages and clubhouse associated with the South Fork Fishing and Hunting Club represent the late 19th century leisure activities of some of Pittsburgh's most prominent businessmen. Of the 14 cottages that were once part of the resort, eight remain, with varying degrees of alterations. The clubhouse is currently being rehabilitated, and the annex was turned into an apartment building. The site is situated along a hillside of the Little Conemaugh River Valley (once Lake Conemaugh reservoir) and is now surrounded by the town of Saint Michael, an early 20th-century mining town.

### Representation of Story Elements:

*Society in an Industrial Culture* — The South Fork Fishing and Hunting Club represents one aspect of the lives of those who accumulated industrial wealth.

*Interaction Between People and the Landscape* — The South Fork Fishing and Hunting Club represents the interaction between people and the landscape through the manipulation of the river, initially for transportation purposes (the Conemaugh Reservoir was originally built to provide



water for the Main Line Canal) and then for recreational purposes and the consequences that followed with the dam's failure.

#### **TRAUGER AND HECLA NO. 2 MINE AND COKE WORKS**

**Location:** Approximately 10 miles southeast of Greensburg

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (In operation from 1889-1925) The Hecla No. 2 Mine and Coke Works contains a bank and two rows of beehive block ovens in varying condition and the original reservoir used for quenching the coke ovens. No other mine or coke works structures remain, and the area is overgrown with vegetation.

Trauger features an architecturally impressive Byzantine church and five company houses in altered, but good condition.

#### **Representation of Story Elements:**

*Industrialization* — The reservoir and beehive ovens represent technological aspects of a late 19th century coking operation.

*Society in an Industrial Culture* — The presence of the Byzantine Catholic Church is indicative of immigrant presence.

#### **TURTLE CREEK VALLEY - WESTINGHOUSE AIR BRAKES COMPANY, WESTINGHOUSE LIBRARY/OFFICE, WESTINGHOUSE MANUFACTURE, ELECTRIC HEIGHTS**

**Location:** The Turtle Creek Valley lies southeast of Pittsburgh and immediately north of the Monongahela River. Turtle Creek is a large tributary to the Monongahela River.

**Ownership:** Public, Private

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 2

**Resource and Site Description:** Individually distinguished sites and institutions include: Westinghouse Manufacturing, Westinghouse Air

Brakes Company, Westinghouse Library/Office, and Electric Heights. Westinghouse Library/Office, also known as "the Castle," was built by George Westinghouse as a community center, in the philanthropic spirit of Andrew Carnegie and other area industrialists but was rebuilt as an office after a fire. Electric Heights was built to provide housing for defense workers during the war. It is very well preserved, not only architecturally, still exhibiting the shared community spirit that typified such projects when built.

**Representation of Story Elements:** George Westinghouse's numerous innovations in items ranging from air brakes to switches and signals, and the continued innovative industry of the Westinghouse Company are better represented by the sites in the Turtle Creek Valley than anywhere else. The company continues to be a leader in industrial technology and scientific design in the Pittsburgh area.

#### **UNIONTOWN DOWNTOWN HISTORIC DISTRICT**

**Location:** The city of Uniontown is located in western Pennsylvania at the foot of the Allegheny Mountains, 50 miles south of Pittsburgh on U.S. 40, Fayette County, and approximately 20 miles from the borders of West Virginia and Maryland.

**Ownership:** Private, public

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The Uniontown Downtown Historic District is formed from the core of the central business district, where the city's old commercial center developed. It comprises about six blocks of Main Street, two blocks of Morgantown Street, four blocks of Gallatin Avenue, and shorter stretches of other downtown streets. There are 133 buildings within the historic district, of which 112 are contributing and 21 noncontributing.

#### **Representation of Story Elements:**

*Westward Expansion/Early Settlement* — The Uniontown Downtown Historic District illustrates major themes of the community's history, including Uniontown's long-standing position as agricultural service center and county seat, the location of the National Road through Uniontown in the first half of the 19th century, and the considerable prosperity of the local coal and

coke industry from 1880 well into the 20th century. The district's architecture ranges from the vernacular and Federal style buildings of the National Road era to Victorian high style commercial and public buildings of the coal and coke era.

## **WEIRTON STEEL CORPORATION**

**Location:** Weirton, Hancock County, WV

**Ownership:** Employee Stock Ownership Program (ESOP)

**Proposed Use of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** (In operation from 1910 to present) Weirton represents a fully integrated and operational steel mill with a support community. Its operations feature blast furnaces, basic-oxygen process shop, continuous slab castor, and a wide variety of finishing strip steel processes. In addition to some of the more modern facilities, the mill also contains earlier structures, such as the intact Blooming Mill engine house. The town of Weirton features well maintained and intact company housing, as well as the art deco Thomas Milsop Community Center and the Mary Weir Library, built by the company for the community. The mill site is along the Ohio River and is surrounded by the town of Weirton. It has a public road that cuts through the center of the mill, allowing the public to safely observe and experience some of the mill processes.

### **Representation of Story Elements:**

*Industrialization* — Weirton represents the early 20th-century technological innovations of an integrated steel mill.

*Society in an Industrial Culture* — The town of Weirton represents the strong tie between community and mill, especially in its commitment to make ESOP work.

*American Labor History* — Weirton Steel Corporation is an employee-owned company, purchased by the employees in 1984. Their successful efforts represent the desire of steelworkers to save their company and their jobs despite devastating conditions within the steel industry that had caused so many other plant closures.

## **WESTMORELAND GLASS COMPANY**

**Location:** In Grapeville, just southeast of Jeannette, Westmoreland County, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 2

**Resource and Site Description:** (In operation from 1889 to 1982) The Westmoreland Glass Company is an intact and integrated glass company that specialized in tableware. The site contains many of its original structures from the late 19th-century, including the hot metal shop with furnaces and machinery, machine shop/mold shop with original patterns and early milling machinery, original kilns, and other associated structures. The complex is along Brush Creek and adjacent to the PRR. Although the complex is occupied in part by local artists, the resources are potentially threatened due to neglect.

### **Representation of Story Elements:**

*Industrialization* — The Westmoreland Glass Company clearly represents the turn-of-the-century glass tableware making industry, as it retained much of its older technological base throughout its operation.

*Society in an Industrial Culture* — The Westmoreland Glass Company acquired houses for its employees, of which the employees were allowed to pay off through monthly installments from their wages.

## **WEST OVERTON HISTORIC DISTRICT**

**Location:** Northwest of Route 819 approximately 1½ miles northeast of the town of Scottdale, Pennsylvania, in Westmoreland county

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternative 1

**Resource and Site Description:** The West Overton Historic District is an exceptional example of mid 19th-century western Pennsylvania vernacular architecture, including along its single street the homestead of the village's founding family, the Mennonite Overholts; the mill building for the profitable family distilling industry; the village store; and

houses for members of the Overholt family and laborers.

#### **Representation of Story Elements:**

*Society in an Industrial Culture* — West Overton represents the transition of a rural agricultural community to a rural industrial economy during the 19th century.

*Westward Expansion/Early Settlement* — West Overton also represents early settlement patterns of a specific religious group in the western Pennsylvania region.

#### **WHEELING, WEST VIRGINIA, HERITAGE PROJECT AREA**

**Location:** Wheeling, Ohio County, West Virginia

**Proposed Use Of Resource:** Spoke resource for alternative 3

**Resource and Site Description:** The Wheeling Heritage Project Area includes multiple resources in the city of Wheeling. Resources as diverse as the Wheeling Suspension Bridge, Wheeling Steel and Iron Co., and the Bumgardner Foundry and Machine Company are included.

**Representation of Story Elements:** Efforts are underway to have the city of Wheeling and its diverse resources, represented by several themes — transportation and the Ohio River, commerce and industry, politics and the Civil War, and diverse recreational resources — designated a national heritage area through federal legislation. For alternative 3, the Wheeling Heritage Area would serve to augment the story of "big steel" in the region, from iron to steel production.

#### **WINDBER AND SCALP LEVEL/ EUREKA MINE 40 HISTORIC DISTRICTS**

**Location:** Approximately 8 miles southeast of Johnstown, Cambria and Somerset counties, PA

**Ownership:** Private

**Proposed Use of Resource:** Spoke resource for alternatives 1 and 2

**Resource and Site Description:** (Mine 40, in operation from 1905-1962 under Berwind-White

and sporadically through 1982 under successive ownerships) Eureka Mine 40 was one of the largest and best equipped coal mines in the region, and due in part to its recent operations, features a variety of intact resources with good integrity. Extant resources include tippie and cleaning plant, motor barn, fan house, railroad car repair shop, wash house, and a large powerhouse. The mine is located in Scalp Level Borough, a coal patch community built to support the workers of Mine 40, with company-built housing still extant. Mine 40 and Scalp Level are adjacent to Windber, planned and built as the corporate headquarters for Berwind-White and as a company town for the many mines surrounding the community. Windber has several architecturally impressive buildings, including the original post office building that is currently being planned as the Coal Heritage Center.

#### **Representation of Story Elements:**

*Industrialization* — Eureka Mine 40 represents the technological innovations developed through Berwind-White's continued efforts for high-quality production and improved mining conditions.

*Society in an Industrial Culture* — Windber represents the company's intentions to create a positive corporate image, complete with town amenities and opportunities for individually owned worker housing. Scalp Level represents the living and working conditions typical of coal patch communities throughout the region.

*Interaction Between People and the Landscape* — The immense bony pile at Eureka Mine 40 serves as evidence of man's and industrialization's devastating impact on the environment.

*American Labor History* — The miners at the Berwind-White coal mines represent the struggle of miners throughout the region for fair wages, safe working conditions, and union recognition. The United Mine Workers tried unsuccessfully in 1922 to organize the miners but were ultimately defeated by the company. The 1922 strike had ramifications throughout the nation and drew particular attention to the Windber area.



**APPENDIX H: NATIONAL REGISTER STATUS OF RESOURCES  
INCLUDED UNDER EACH ALTERNATIVE**

<b>RESOURCE NAME</b>	<b>LOCATION</b>	<b>DATE LISTED</b>
Alcoa Aluminum Research Laboratories	New Kensington, Westmoreland County	Determined eligible by John Milner survey, not submitted to Bureau of Historic Preservation (BHP) as of 7/31/94
Allegheny Portage Railroad National Historic Site	Blair County	10/15/66
Allegheny Furnace	Blair County	6/25/90
Allison Mine	Fayette County	Documentation not completed
Altoona Railroad Shops – Master Mechanic’s Building	Altoona, Blair County	Determined eligible
Altoona Downtown Historic District	Blair County	7/24/92
Bedford Springs Historic District	Bedford County	12/22/83
Berwind-White Mine 40 Historic District	Cambria County	4/28/92
Brownsville Commercial and Residential Historic Districts	Fayette County	7/18/85
Bushy Run Battlefield, National Historic Landmark	Westmoreland County	10/15/66
Cambria Iron Company, National Historic Landmark	Cambria County	6/22/89
Cambria City Historic District	Cambria County	11/14/91
Clairton Coke Works	Allegheny County	Documentation not completed
David Bradford House National Historic Landmark	Washington, Washington County	1973
Dawson – Methodist Church	Fayette County	June 1984
East Broad Top National Historic Landmark	Huntingdon County	10/15/66
Edgar Thomson/Irvin Plant (Monongahela Valley Works) working steel mill facilities	Allegheny County	Documentation not completed
Eliza Furnace	Indiana County	9/6/91
Espy House National Historic Landmark	Bedford County	11/19/74
Forks of the Ohio NHL	Point State Park - Pittsburgh	10/15/66
Fort Ligonier	Westmoreland County	1/21/75
Fort Necessity National Battlefield	Fayette County	10/15/66
Friendship Hill National Historic Site	Fayette County	10/15/66
Gallitzin Tunnels	Cambria County	Determined eligible by BHP 6/8/90
Greenwood Furnace	Huntingdon County	11/13/89
Harbison-Walker Refractories Company, Mount Union	Huntingdon County	3/20/89
Homestead Historic District	Homestead, Allegheny County	5/10/90
Horseshoe Curve National Historic Site	Cambria County	11/13/66
Huntingdon Furnace	Huntingdon County	3/20/90
Isaac Meason House National Historic Landmark	Fayette County	1/25/71
Johnstown Flood National Memorial	Cambria County	10/15/66
Johnstown Flood Museum (Carnegie Library)	Johnstown, Cambria County	June 19, 1972
Leisenring	Fayette County	Documentation not completed
Millionaires’ Row (Pittsburgh)	Pittsburgh, Allegheny County	Documentation not completed
Monessen Works	Westmoreland County	Documentation not completed
Monongahela Valley Steel Mills	Allegheny County	Documentation not completed

RESOURCE NAME	LOCATION	DATE LISTED
Mt. Etna Furnace Complex	Blair County	9/6/91
Saltsburg Historic District	Indiana County	5/7/92
Scottdale/Alverton – Frick Office Buildings/Coke Ovens	Westmoreland County	Documentation not completed
Searights Tollhouse National Historic Landmark	Fayette County	6/19/73
Shoaf Mine	Fayette County	Determined eligible by BHP Dec. 1993
South Fork Fishing and Hunting Club Historic District	Cambria County	2/24/82
Trauger and Hecla 2 Mine and Coke Works	Westmoreland County	Documentation not completed
Turtle Creek – Westinghouse Electric Company facilities	Allegheny County	Documentation not completed
Uniontown Downtown Historic District	Fayette County	5/19/89
Vandergrift Historic District	Westmoreland County	Determined eligible by BHP 11/30/89
Weirton Steel	Weirton, West Virginia, Hancock County	Documentation not completed
West Overton Historic District	Westmoreland County	7/18/85
Westmoreland Glass Company, Grapeville, Hempfield Township	Westmoreland County	Determined eligible by BHP 3/6/89
Windber and Scalp Level/Eureka Mine 40 Historic Districts	Somerset County	11/14/91

Potential National Historic Landmark Properties  
– Western Pennsylvania

Addison's Tollhouse – Addison

Dunlap's Creek Bridge – Brownsville

S Bridge – Washington County

Jumonville Glen – Fort Necessity

Great Meadows – Fort Necessity

J. Edgar Thomson Works – Pittsburgh

Conrail Shops, including the Juniata Shops – Altoona

Gallitzin Tunnels – Cambria County

Alcoa Aluminum Research Laboratories – New Kensington

Westinghouse Electric Company Facilities – Turtle Creek

In addition to the above resources, NHL theme studies could be conducted for resources associated with mining, glass manufacture, refractory brick manufacture, and transportation, including national road era inns and other structures.

## APPENDIX I: SCENIC AND RECREATIONAL RESOURCE INVENTORY

A comprehensive list of scenic and recreational resources throughout the geographical study area has been inventoried. All resources listed are either existing or are currently being planned by the National Park Service or other public and private agencies. The planned resources are indicated as such within the following chart and on the Scenic and Recreational Resources Database map that follows. Trails that are proposed for the alternatives are indicated as *proposed* and are on the alternatives maps; they are not included in the table or on the map. Numbers in the first column of the table correspond with those on the map.

Multiuse trails refer to uses other than, and in addition to, hiking and include one or more of the following: equestrian, bicycling, cross-country skiing, backpacking, all-terrain vehicle, snowmobiling, etc.

State game lands are prevalent throughout the study area but are referred to only in terms of proximity to resources listed in the database. Game lands are not included on the Scenic and Recreational Resources Database map.



NO.	NAME	LOCATION	REMARKS
<b>STATE PARKS</b>			
1	Whipple Dam State Park	Approx. 10 miles south of State College, Huntingdon County, PA	Within Rothrock State Forest, the park is heavily forested with deciduous stands, contains the Laurel Run Natural Area and multiuse trails, and is close to the Mid-State Trail
2	Greenwood Furnace State Park	Approx. 20 miles southeast of State College, Huntingdon County, PA	Home of the Greenwood Furnace, the park is surrounded by Rothrock State Forest; multiuse trails connect the park to the state forest and to the Mid-State Trail
3	Trough Creek State Park	Approx. 15 miles southwest of Mt. Union, Huntingdon County, PA	Park's special features include Balanced Rock, Ice Mine, and Copperas Rock, all of which are unusual geologic features; contains many scenic hiking trails, sites of an old iron furnace, forge, and a Civilian Conservation Corps camp
4	Canoe Creek State Park	East of Hollidaysburg, Blair County, PA	Park features panoramic scenic views, lake, and the remains of two lime kiln operations with interpretation; multiuse trails
5	Prince Gallitzin State Park and Glendale Lake	Approx. 20 miles north of Gallitzin, Cambria County, PA	Park surrounds a large lake that features boating and fishing activities, is adjacent to state game lands no. 108, and contains a nature center with environmental programs
6	Laurel Ridge State Park	A linear park from Youghiogheny River to the Conemaugh gorge, along Laurel Mountain	Features a major segment of the Laurel Highlands Hiking Trail and additional multiuse trails
7	Yellow Creek State Park	Approx. 10 miles southeast of Indiana, Indiana County, PA	Park features a reservoir, a variety of habitats, and multiuse trails, including a course of the Kittanning Path and a historic trail first used by the Delaware and Shawnee Indians
8	Keystone State Park and Lake	Approx. 15 miles southeast of Saltsburg, Westmoreland County, PA	Park features a reservoir that was originally built to quench coking operations downstream; it is heavily forested with multiuse trails
9	Laurel Mountain State Park	Approx. 10 miles southeast of Ligonier, Westmoreland County, PA	Park features the Laurel Mountain Ski Area and multiuse trails
10	Linn Run State Park	Approx. 10 miles south of Ligonier, Westmoreland County, PA	Park features scenic vistas and excellent examples of geologic features; contains mixed hardwood and evergreen forests, waterfalls and hiking trails
11	Laurel Summit	Within Laurel Ridge State Park, approx. 12 miles northwest of Somerset, Somerset County, PA	See Laurel Ridge State Park
12	Kooser State Park	Approx. 10 miles west of Somerset, Somerset County, PA	Surrounded in part by Forbes State Forest, it is rumored that within the park is an Indian battle site because a number of archeological remains have been found; accesses the Laurel Highlands Trail
13	Laurel Hill State Park	Approx. 10 miles west of Somerset, Somerset County, PA	Part of several state parks in the Laurel Mountain area — contains multiuse trails, in addition to the Laurel Highlands Trail, and has a rare virgin hemlock stand
14	Ohiopyle State Park	Approx. 15 miles east of Uniontown, Fayette County, PA	Park features include Cucumber Falls, Ferncliff Peninsula, abundant waterfalls and white-water recreational opportunities, scenic vistas, and unique geological formations; park also includes multiuse trails and connects to both the Laurel Highlands and Youghiogheny River trails
15	Blue Knob State Park	Approx. 20 miles north of Bedford, Bedford County, PA	Park features the Blue Knob Recreation Area/Ski Area and multiuse trails
16	Raccoon Creek State Park	Approx. 10 miles west of the Pittsburgh International Airport, Beaver County, PA	One of the largest in PA, this park features the Frankfort Mineral Springs, a lake, abundant wildlife, and the Wildflower Reserve
17	Ryerson Station State Park	Approx. 20 miles west of Morrisville, Greene County, PA	Park is named after Fort Ryerson, an 18th century refuge from Indian raids; contains a reservoir, hiking trails, rolling topography, and old orchards
18	Shawnee State Park	Approx. 10 miles west of Bedford, Bedford County, PA	Park features Shawnee Lake with fishing and boating opportunities

NO.	NAME	LOCATION	REMARKS
<b>STATE PARKS</b>			
19	Tomlinson Run State Park	North of New Manchester, Hancock County, WV	Once a heavily clay-mined and clear-cut area, the park has been restored and allowed to naturalize; features Tomlinson Run and Gorge, sandstone cliffs, and multiuse trails
20	Valley Falls State Park	Southeast of Fairmont on the border of Marion and Taylor Counties, WV	Park features the scenic Tygart River with its double waterfall and hiking trails
21	Tygart Lake State Park	South of Grafton, Taylor County, WV	Park features the Tygart Lake, hiking trails, dense forests, and wildflowers
22	Watters Smith Memorial State Park	South of Clarksburg, Harrison County, WV	Park features a restored pioneer homestead with interpretation and guided tours
23	Cathedral State Park	Preston County, WV	Park listed in the National Registry of Natural History Landmarks and features virgin hardwoods and the largest hemlock in West Virginia
24	Grave Creek Mound State Park	Just south of Moundsville, Marshall County, WV	Park features the site of an ancient Indian burial ground
25	Picketts Fort State Park	North of Fairmont, Marion County, WV	Park features a reconstructed fort and boating access to the Monongahela River
26	Point State Park	At Pittsburgh's Golden Triangle, Allegheny County, PA	Site of Forks of the Ohio NHL
27	Hillman State Park	North of Burgettstown, along U.S. 22, Washington County, PA	An undeveloped state park administered by the Pennsylvania Game Commission
<b>STATE FORESTS/STATE FOREST NATURAL AREAS</b>			
28	Gallitzin State Forest (and Clark Run Gorge in Charles F. Lewis Natural Area)	Southeast of Windber in Somerset County, PA, and northeast of Johnstown, Cambria County, PA	Charles F. Lewis Natural Area features the Clark Run Gorge with a 2-mile trail through the gorge, small waterfalls, and geological features;
29	Forbes State Forest/Roaring Run and Spruce Flats Natural Areas	Westmoreland, Fayette and Somerset Counties, PA	Forbes State Forest consists of three separate areas, which include three natural areas and one wild area: Roaring Run and Spruce Flats Natural Areas feature a climax forest and a highland bog, respectively; Mount Davis Natural Area features Mount Davis, the highest point in Pennsylvania at 3,213 ft.; and Quebec Run Wild Area features the Quebec Run Trail System; multiuse trails abound in addition to Laurel Highlands Trail
30	Rothrock State Forest	Rothrock State Forest	Located primarily in Huntingdon County, PA, the forest consists of two areas — one east of Raystown Lake and the other in the northeast part of the county. Forest features three state parks: Whipple Dam, Greenwood Furnace, and Trough Creek; five natural areas: Alan Seeger, Bear Meadows NNL, Detweiler Run, Big Flat Laurel, and Little Juniata, which collectively feature unique and outstanding plant specimens and geologic formations; scenic resources abound; forest also features challenging hiking trails
31	Buchanan State Forest	Northwestern Fulton County and South Bedford County, PA	Forest contains two natural areas and one wild area: Sweet Root and Pine Ridge natural areas that feature virgin hemlock, virginia pine, and an abandoned farm; Martin Hill Wild Area is also included
32	Coopers Rock State Forest	Northern Monongalia and Preston Counties, WV	West Virginia's largest state forest; features scenic overlooks, virgin forests, Cheat River Gorge, unusual rock formations, hiking trails and the Henry Clay Iron Furnace

NO.	NAME	LOCATION	REMARKS
<b>LAKES, RESERVOIRS, AND RECREATION AREAS</b>			
33	Raystown Lake Recreation Area	South of Huntingdon, Huntingdon County, PA	Reservoir and surrounding area used primarily for fishing, hunting, and water sports; area contains hiking trails with connections to Trough Creek State Park
34	Beaver Run Reservoir	Approx. 10 miles south of Vandergrift, Westmoreland County, PA	
35	Loyalhanna Lake Recreation Area	Approx. 3 miles south of Saltsburg, Westmoreland County, PA	An Army Corps of Engineers project that is also used for recreation; surrounding lands are used for hunting and are leased to the Pennsylvania Game Commission; area also features the Black Willow Water National Recreational Trail with interpretive waysides focusing on aquatic flora and fauna and unique cliffs
36	Conemaugh Lake Recreation Area	Approx. 6 miles south of Saltsburg, Westmoreland/Indiana Counties border, PA	Features fishing
<b>SCENIC AND RECREATIONAL RIVERS</b>			
37	Monongahela River	Headwaters in Fairmont, WV; flows north to confluence with the Allegheny and the Ohio in Pittsburgh, PA	Recreational; canoe trail considered easy
38	Cheat River	Headwaters near Parsons, WV; flows north to confluence with the Monongahela near Point Marion, Fayette County, PA	Recreation; rafting rated easy, intermediate, and difficult
39	Youghiogheny River	Headwaters near Oakland, MD; flows north to confluence with the Monongahela at McKeesport, PA	Recreational and proposed scenic area; canoe trail and rafting rated easy, intermediate, and difficult; several creeks and runs that feed into the Youghiogheny in Fayette and Somerset counties proposed as scenic rivers under the Pennsylvania Scenic Rivers Systems
40	Allegheny River	Headwaters near Salamanca, NY; flows south to confluence with the Ohio and Mon at Pittsburgh, PA	Recreational and proposed scenic area; canoe trail easy
41	Ohio River	Headwaters in Pittsburgh, PA; flows along the WV/OH border and eventually to the Mississippi	Recreational; canoe trail easy
41a	Beaver River	Headwaters south of New Castle at the confluence of several other rivers and flows south to the Ohio River in Beaver County, PA	Recreational; canoe trail easy
42	Kiskiminetas River	Headwaters in Saltsburg, PA; flows northwest to confluence with the Allegheny, near Freeport, PA	Recreational; canoe trail easy
43	Conemaugh River	Headwaters in Johnstown, PA; flows northwest to confluence with Kiskiminetas and Loyalhanna Rivers in Saltsburg, PA	Recreational; canoe trail easy, intermediate, and unclassified
44	Little Juniata and Juniata Rivers	Headwaters near Altoona, PA; flows east to confluence with the Juniata, west of Mt. Union, PA	Recreational and proposed scenic; canoe trail easy; the Frankstown Branch of Juniata River proposed as a scenic river under the Pennsylvania Scenic Rivers Program



NO.	NAME	LOCATION	REMARKS
<b>PLANNED AND EXISTING TRAILS</b>			
45	Raystown Branch of the Juniata River	Through Bedford County to Raystown Lake, PA	Proposed scenic river under the Pennsylvania Scenic Rivers Systems
46	Potomac Heritage National Scenic Trail (Planned)	when complete, will extend from mouth of Potomac River to Conemaugh Gorge	Pennsylvania segment follows the Laurel Highlands Trail, see Laurel Highlands Trail
47	Laurel Highlands Trail	from Ohiopyle State Park to Seward, along the Fayette/Westmoreland and Somerset County borders	Trail connects a number of state parks, including Ohiopyle, Laurel Ridge, Laurel Hill, and Laurel Mountain; primary use hiking, other uses include ski touring; trail is known for its spectacular views, blooming laurel, and rhododendron
48	Warrior Trail	Greensboro to West Virginia border, southern Greene County	Trail connects with Catawba Trail, follows Indian path, and parallels the Mason-Dixon Line; primary use hiking
49	Baker Trail	Southern trailhead near the Kiskiminetas/Allegheny confluence; extends north to Allegheny National Forest	140-mile hiking trail, traverses mainly through farmlands and woods
50	Catawba Trail	Extends north/south through eastern Greene County, PA	22-mile historic Indian trail and trading route, intersects with the Warrior Trail
51	The Tuscarora Trail	Extends along almost the entire eastern border of Fulton County, PA	A 90-mile hiking trail, approximately 1/3 of the trail is in Fulton County and extends east outside the study area; linked to the Mid-State Trail via the Link Trail
52	Forbes Trail	Extends east/west through Westmoreland County, north of Greensburg	An 18-mile trail follows the historic Forbes Road
53	John P. Saylor Trail	Approx. 10 miles west of Johnstown, Somerset County, PA	Trail within the Gallitzin State Forest and connects to Blue Knob State Park
54	Link Trail (Mid State/Tuscarora)	Extends north/south through eastern Huntingdon County, PA	65-mile trail connects the Mid State and Tuscarora Trails
55	Lost Turkey Trail	Located in the Blue Knob State Park, Bedford County, PA	26-mile trail used primarily for hiking and backpacking; joins the John P. Saylor Trail in the Gallitzin State Forest
56	Mid State Trail System	Southern trailhead is approx. 10 miles northeast of Huntingdon, Huntingdon County, PA	Primary use hiking; other uses include ski touring; trail extends from southern trailhead 168 miles to Blackwell (outside the study area) and mostly on public lands
57	Youghiogheny River Trail, Ohiopyle Trail and the Allegheny Highlands Trail	Along the Youghiogheny River from McKeesport through Connellsville to Confluence, PA; from Confluence to Cumberland, MD, and on to Washington, D.C.	(Trail construction in progress) From McKeesport to Confluence the trail follows abandoned railroad lines and is supported in part by the Rails to Trails Conservancy of Pennsylvania; this multiuse trail extends between historic communities and state parks, including Ohiopyle State Park
58	Three Rivers Heritage Trail (planned)	Along the Allegheny, Ohio and Mon Rivers, Pittsburgh, PA	A planned trail extends through riverfront open space, communities, and the Three Rivers Stadium area of Pittsburgh
59	Steel Heritage Trail (Planned)	From the Three Rivers Heritage Trail in Pittsburgh to McKeesport, PA	A planned trail extends from Pittsburgh to the Youghiogheny River Trail
60	Montour Trail (Planned)	From Clairton, PA, through northern Washington County and to Pittsburgh Point, Pittsburgh, PA	Portions of this planned 55-mile trail are built and follow abandoned railroad corridors
61	Johnstown Flood Route Trail (Planned)	From Johnstown to St. Michael, PA	Planned multiuse trail following the route of the 1889 Johnstown Flood along the Little Conemaugh River

NO.	NAME	LOCATION	REMARKS
62	Ghost Town Trail (existing) and Ghost Town Trail Extension (planned)	From Dilltown to Ebensburg, Indiana and Cambria Counties, PA	Construction of a rails-to-trails project in progress that extends along Blacklick Creek and adjacent to Eliza Furnace in Vintondale; the extension is planned to go north to Manyer Station from White Mill Crossing
63	Jim Mayer Trail	Johnstown, PA	Multiuse trail open for use
64	Juniata River Corridor Lower Trail (existing); Lower Trail Extension and Blair Trail (planned)	The existing trail extends from Williamsburg in Blair County to Alferetta in Huntingdon County, PA	A rails-to-trails project will connect to the New Portage Trail via abandoned railroad lines; the extension will proceed to Huntingdon and the Blair Trail extends northwest
65	Conemaugh River Greenway (planned)	Along the Conemaugh and Kiskiminetas Rivers, from Johnstown to Saltsburg	Portions of this 50-mile multiuse trail will use abandoned rail corridors and canal towpaths of the Main Line Canal
66	New Portage Trail (partially built)	South of Altoona from U.S. 22 to Foot of Ten, Blair County, PA	A rails-to-trails project that will connect to the Juniata River Corridor Lower Trail
67	Little Conemaugh River Greenway (planned)	From Southfork to just north of Cresson, Cambria County, PA	Multiuse trail along the river
68	Midstate Extension	Extends from the Midstate Trail south along the eastern boundary of Blair County and into the northern half of Bedford County, PA	Blazed hiking trail
69	Prince Gallitzin Network (planned)	Northern Cambria County, extending into southern Clearfield County, PA	A rails-to-trails project in and around Prince Gallitzin State Park
70	St Michael to Scalp Level to Windber Trail (planned)	Southern Cambria and northern Somerset Counties, PA	Part of the Allegheny Ridge State Heritage Park Plan
71	Boswell Loop (planned)	Extends north from Somerset, Somerset County, PA	Multiuse rails-to-trails project
72	PW&S Trail	In Forbes State Forest; Somerset and Westmoreland Counties, PA	A 32-mile mountain bike trail; construction in progress
73	Blairsville to Homer City to Indiana to Creekside Trail (planned)	Indiana County, PA	Project contingent on new highway development. Indiana to Creekside is a potential rails-to-trails project
74	Saltsburg to Export to Murrys ville Trail (planned)	Westmoreland County, PA	Rails-to-trails project with potential expansion to Murrys ville
75	Saltsburg to Vandergrift Trail (planned)	Along the Kiskiminetas River, Armstrong and Westmoreland Counties, Pa	Rails-to-trails project
76	Vandergrift to Freeport Trail (planned)	Along the Kiskiminetas River, Armstrong and Westmoreland Counties, PA	Trail will follow the route of the former Pennsylvania Main Line Canal

NO.	NAME	LOCATION	REMARKS
77	Buffalo and Susquehanna Line Trail (planned)	Northern Indiana County, PA	Rails-to-trails project
78	Sewickley Drainage Basin Network of Trails (planned)	Mid to western Westmoreland County, PA	A portion of this network connects Greensburg with Scottdale. This network includes seven trails, totaling 30 miles
79	Brown's Run (planned)	Southwest Fayette County, PA	Rails-to-trails project
80	Uniontown to Lake Lynn Trail (planned)	Fayette County, PA	Rails-to-trails project
<b>OTHER PRIVATE OR PUBLIC AGENCY MANAGED AREAS</b>			
81	Bear Run Nature Reserve and Bear Run Nature Reserve National Recreation Trail	North of Ohiopyle State Park, Fayette County, PA	Owned by the Western Pennsylvania Nature Conservancy; Youghiogheny and tributaries run through the area, with cascades and waterfalls; reserve encompasses one of the finest stands of old-growth forest in the state; location of Frank Lloyd Wright's Falling Water
82	Ferncliff Peninsula national Natural Landmark	Ohiopyle State Park, Fayette County, PA	Surrounded on three sides by the Youghiogheny River, the peninsula features a 40-foot waterfall; contains unique habitat and features as a meeting ground for several northern and southern plant species; includes an interpretive trail with stories about the resort that once existed there
83	Monongahela National Forest	Southeastern tip of Preston County, WV	The northern most point of West Virginia's largest national forest



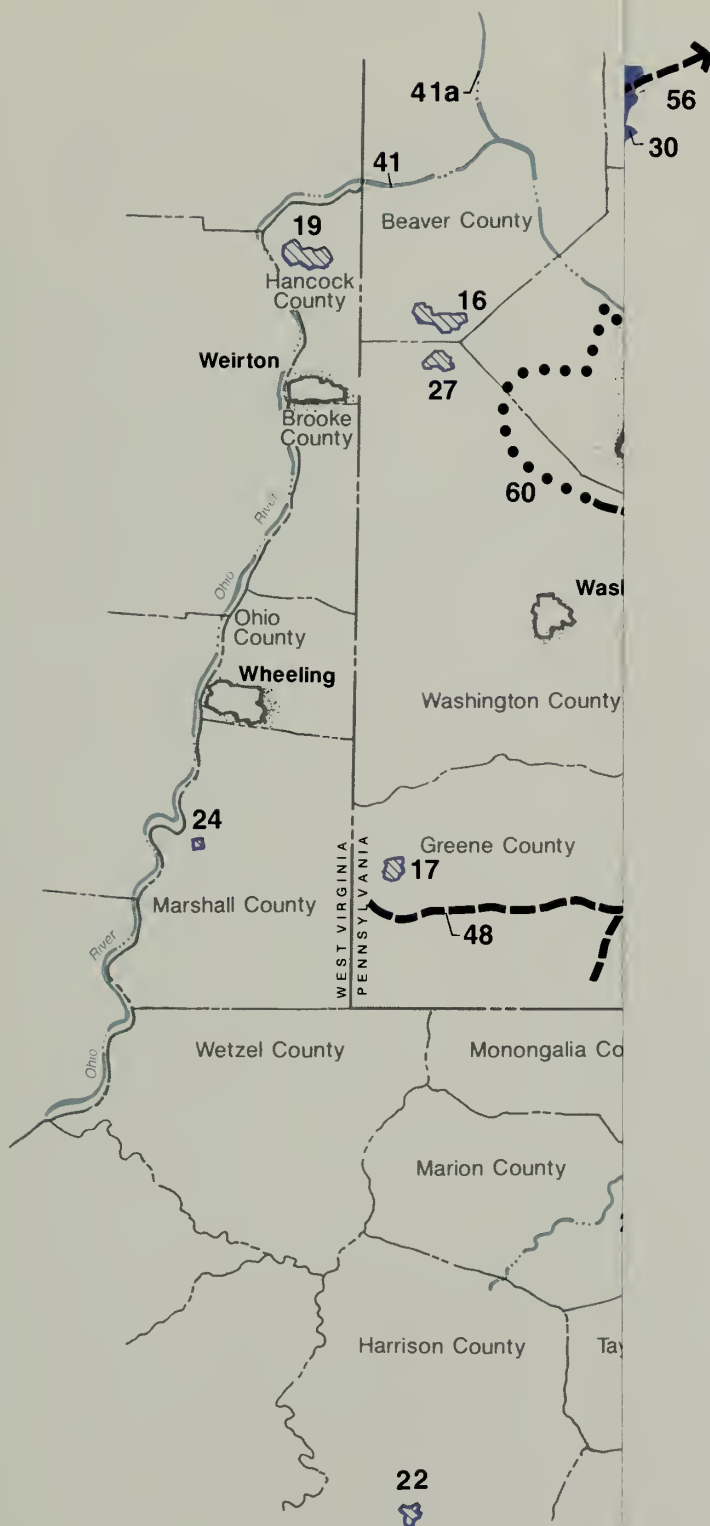
## SCENIC AND RECREATIONAL RESOURCES

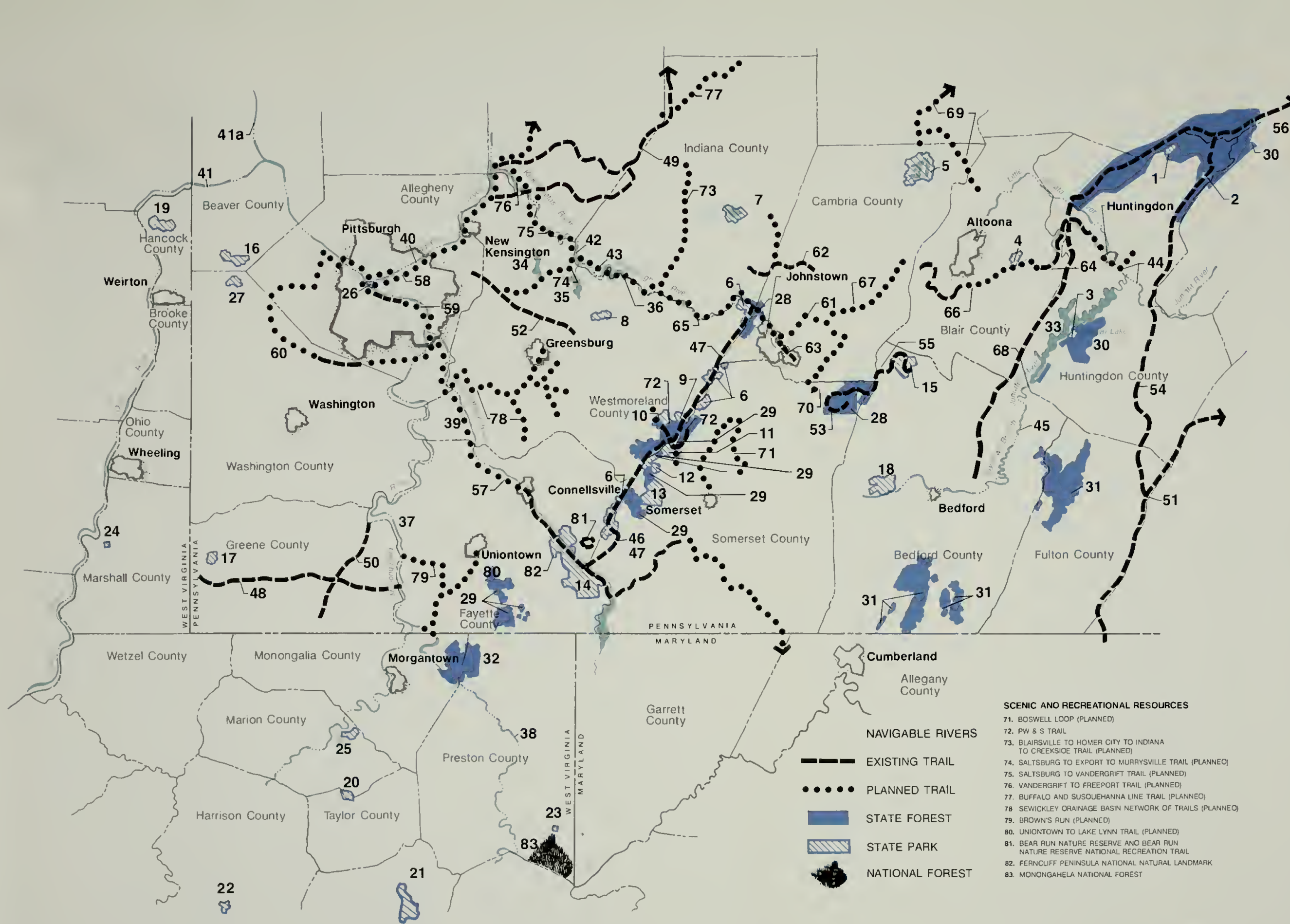
1. WHIPPLE DAM STATE PARK
2. GREENWOOD FURNACE STATE PARK
3. TROUGH CREEK STATE PARK
4. CANOE CREEK STATE PARK
5. PRINCE GALLITZIN STATE PARK AND GLENDALE LAKE
6. LAUREL RIDGE STATE PARK
7. YELLOW CREEK STATE PARK
8. KEYSTONE STATE PARK AND LAKE
9. LAUREL MOUNTAIN STATE PARK
10. LINN RUN STATE PARK
11. LAUREL SUMMIT STATE PARK
12. KOOSER STATE PARK
13. LAUREL HILL STATE PARK
14. OHIOPILE STATE PARK
15. BLUE KNOB STATE PARK
16. RACCOON CREEK STATE PARK
17. RYERSON STATION STATE PARK
18. SHAWNEE STATE PARK
19. TOMLINSON RUN STATE PARK
20. VALLEY FALLS STATE PARK
21. TYGART LAKE STATE PARK
22. WATERS SMITH MEMORIAL STATE PARK
23. CATHEDRAL STATE PARK
24. GRAVE CREEK MOUND STATE PARK
25. PICKETTS FORT STATE PARK
26. POINT STATE PARK
27. HILLMAN STATE PARK
28. GALLITZIN STATE FOREST (AND CLARK RUN GORGE IN CHARLES F. LEWIS NATURAL AREA)
29. FORBES STATE FOREST / ROARING RUN AND SPRUCE FLATS NATURAL AREAS
30. ROTHROCK STATE FOREST
31. BUCHANAN STATE FOREST
32. COOPERS ROCK STATE FOREST
33. RAYSTOWN LAKE RECREATION AREA
34. BEAVER RUN RESERVOIR
35. LOYALHANNA LAKE RECREATION AREA
36. CONEMAUGH LAKE RECREATION AREA
37. MONONGAHELA RIVER
38. CHEAT RIVER
39. YOUGHIOGHENY RIVER
40. ALLEGHENY RIVER
41. OHIO RIVER
- 41a. BEAVER RIVER
42. KISKIMINETAS RIVER
43. CONEMAUGH RIVER
44. LITTLE JUNIATA AND JUNIATA RIVERS
45. RAYSTOWN BRANCH OF THE JUNIATA RIVER
46. POTOMAC HERITAGE NATIONAL SCENIC TRAIL (PLANNED)
47. LAUREL HIGHLANDS TRAIL
48. WARRIOR TRAIL
49. BAKER TRAIL
50. CATAWBA TRAIL
51. TUSCARORA TRAIL
52. FORBES TRAIL
53. JOHN P. SAYLOR TRAIL
54. LINK TRAIL (MID STATE / TUSCARORA)
55. LOST TURKEY TRAIL
56. MID STATE TRAIL SYSTEM
57. YOUGHIOGHENY RIVER TRAIL, OHIOPILE TRAIL AND THE ALLEGHENY HIGHLANDS TRAIL
58. THREE RIVERS HERITAGE TRAIL (PLANNED)
59. STEEL HERITAGE TRAIL (PLANNED)
60. MONTOUR TRAIL (PLANNED)
61. JOHNSTOWN FLOOD ROUTE TRAIL (PLANNED)
62. GHOST TOWN TRAIL
63. JIM MAYER TRAIL
64. JUNIATA RIVER CORRIDOR LOWER TRAIL
65. CONEMAUGH RIVER GREENWAY (PLANNED)
66. NEW PORTAGE TRAIL
67. LITTLE CONEMAUGH RIVER GREENWAY (PLANNED)
68. MID STATE EXTENSION
69. PRINCE GALLITZIN NETWORK (PLANNED)
70. ST. MICHAEL TO SCALP LEVEL TO WINDBER TRAIL (PLANNED)

# SCENIC AND RECREATIONAL RESOURCE DATABASE

## WESTERN PENNSYLVANIA REGION: ITS LANDSCAPE, PEOPLE, AND INDUSTRY

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
UNITED STATES DEPARTMENT OF THE INTERIOR • NATIONAL PARK SERVICE  
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SCENIC AND RECREATIONAL RESOURCES

1. WHIPPLE OAM STATE PARK
2. GREENWOOD FURNACE STATE PARK
3. TROUGH CREEK STATE PARK
4. CANOE CREEK STATE PARK
5. PRINCE GALLITZIN STATE PARK AND GLENDALE LAKE
6. LAUREL RIDGE STATE PARK
7. YELLOW CREEK STATE PARK
8. KEYSTONE STATE PARK AND LAKE
9. LAUREL MOUNTAIN STATE PARK
10. LINN RUN STATE PARK
11. LAUREL SUMMIT STATE PARK
12. KOOSER STATE PARK
13. LAUREL HILL STATE PARK
14. OHIOPYLE STATE PARK
15. BLUE KNOB STATE PARK
16. RACCOON CREEK STATE PARK
17. RYERSON STATION STATE PARK
18. SHAWNEE STATE PARK
19. TOMLINSON RUN STATE PARK
20. VALLEY FALLS STATE PARK
21. TYGART LAKE STATE PARK
22. WATTERS SMITH MEMORIAL STATE PARK
23. CATHOERAL STATE PARK
24. GRAVE CREEK MOUNO STATE PARK
25. PICKETTS FORT STATE PARK
26. POINT STATE PARK
27. HILLMAN STATE PARK
28. GALLITZIN STATE FOREST (AND CLARK RUN GORGE IN CHARLES F. LEWIS NATURAL AREA)
29. FORBES STATE FOREST / ROARING RUN AND SPRUCE FLATS NATURAL AREAS
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31. BUCHANAN STATE FOREST
32. COOPERS ROCK STATE FOREST
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34. BEAVER RUN RESERVOIR
35. LOYALHANNA LAKE RECREATION AREA
36. CONEMAUGH LAKE RECREATION AREA
37. MONONGAHELA RIVER
38. CHEAT RIVER
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40. ALLEGHENY RIVER
41. OHIO RIVER
- 41a. BEAVER RIVER
42. KISKIMINETAS RIVER
43. CONEMAUGH RIVER
44. LITTLE JUNIATA AND JUNIATA RIVERS
45. RAYSTOWN BRANCH OF THE JUNIATA RIVER
46. POTOMAC HERITAGE NATIONAL SCENIC TRAIL (PLANNED)
47. LAUREL HIGHLANDS TRAIL
48. WARRIOR TRAIL
49. BAKER TRAIL
50. CATAWBA TRAIL
51. TUSCARORA TRAIL
52. FORBES TRAIL
53. JOHN P. SAYLOR TRAIL
54. LINK TRAIL (MID STATE / TUSCARORA)
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61. JOHNSTOWN FLOOD ROUTE TRAIL (PLANNED)
62. GHOST TOWN TRAIL
63. JIM MAYER TRAIL
64. JUNIATA RIVER CORRIDOR LOWER TRAIL
65. CONEMAUGH RIVER GREENWAY (PLANNED)
66. NEW PORTAGE TRAIL
67. LITTLE CONEMAUGH RIVER GREENWAY (PLANNED)
68. MID STATE EXTENSION
69. PRINCE GALLITZIN NETWORK (PLANNED)
70. ST. MICHAEL TO SCALP LEVEL TO WINDBER TRAIL (PLANNED)
71. BOSWELL LOOP (PLANNED)
72. PW & S TRAIL
73. BLAIRSVILLE TO HOMER CITY TO INDIANA TO CREEKSIDE TRAIL (PLANNED)
74. SALTSBURG TO EXPORT TO MURRYSVILLE TRAIL (PLANNED)
75. SALTSBURG TO VANDERGRIFT TRAIL (PLANNED)
76. VANDERGRIFT TO FREEPORT TRAIL (PLANNED)
77. BUFFALO AND SUSQUEHANNA LINE TRAIL (PLANNED)
78. SEWICKLEY DRAINAGE BASIN NETWORK OF TRAILS (PLANNED)
79. BROWN'S RUN (PLANNED)
80. UNIONTOWN TO LAKE LYNN TRAIL (PLANNED)
81. BEAR RUN NATURE RESERVE AND BEAR RUN NATURE RESERVE NATIONAL RECREATION TRAIL
82. FERNCLIFF PENINSULA NATIONAL NATURAL LANDMARK
83. MONONGAHELA NATIONAL FOREST

# SCENIC AND RECREATIONAL RESOURCE DATABASE

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

## APPENDIX J: TRANSPORTATION RESOURCES

The Heritage Route Concept Plan has identified three corridors that for centuries have served western Pennsylvania's transportation development (see the Regional Transportation Corridor map).

The first of these corridors in the concept plan is the Juniata River to Allegheny River corridor. This corridor links the two river valleys on opposite sides of the Allegheny watershed. Historic routes in this corridor included portions of the Native American Frankstown and Kittanning Path, the Huntingdon-Cambria-Indiana Turnpike, the Pennsylvania Main Line Canal and Allegheny Portage Railroad, and the Pennsylvania Railroad. Currently the Conrail Main Line and U.S. 22 use this corridor.

The second corridor, the Juniata River/Overland Routes Corridor, follows in part the Raystown branch of the Juniata River and numerous overland routes. This corridor included portions of the historic Native American Raystown and Glades Path, the Forbes Road, the Lincoln Highway, and the Pennsylvania Turnpike. The Pennsylvania Turnpike and U.S. Highway 30 (the Lincoln Highway) and Pennsylvania State Route 31 still use this corridor.

The third corridor, the Monongahela/Youghiogheny Rivers Corridor, follows the drainages of these two rivers. In addition to the two rivers, which were important transportation routes in their own right, the corridor included portions of the historic Native American Nemaquin and Catawba Paths, the Braddock Road, the National Road, the Baltimore and Ohio Railroad, and the National Old Trails Road. Currently, U.S. 40 uses this corridor.



## APPENDIX K: NATIONAL PARK SERVICE CRITERIA FOR NATIONAL SIGNIFICANCE

According to National Park Service *Management Policies* (1988a), a natural, cultural, or recreational resource will be considered nationally significant if it meets all of the following criteria:

- It is an outstanding example of a particular type of resource.
- It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
- It offers superlative opportunities for recreation, public use, and enjoyment or for scientific study.
- It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

Nationally significant cultural resources include districts, sites, buildings, structures, or objects that possess exceptional value or quality in illustrating or interpreting our heritage and that possess a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association. Examples of cultural resources that may be nationally significant include those that

- are associated with events that have made a significant contribution to and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained.
- are associated importantly with the lives of persons nationally significant in the history of the United States.

- represent some great idea or ideal of the American people.
- embody the distinguishing characteristics of an architectural type specimen, exceptionally valuable for study of a period, style, or method of construction; or represent a significant, distinctive, and exceptional entity, whose components may lack individual distinction.
- are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively composing an entity of exceptional historical or artistic significance; or outstandingly commemorate or illustrate a way of life or culture.
- have yielded or may be likely to yield information of major scientific importance by revealing new cultures or by shedding light upon periods of occupation over large areas of the United States.

Ordinarily, cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that have achieved significance within the last 50 years are not considered appropriate for addition to the national park system unless they have transcendent importance, unless they possess inherent architectural or artistic significance, or unless no other site associated with that theme remains.



- ■ ■ ■ NATIONAL ROAD
- LINCOLN HIGHWAY
- PENNSYLVANIA TURNPIKE
- ○ ○ ○ PENNSYLVANIA MAIN LINE CANAL
- + + + + ALLEGHENY PORTAGE RAILROAD
- + + + + PENNSYLVANIA RAILROAD MAINLINE
- + + + + BALTIMORE AND OHIO RAILROAD MAINLINE
- □ □ □ WILLIAM PENN HIGHWAY
- ○ ○ ○ NAVIGABLE RIVER SYSTEMS
- PROPOSED SOUTHWESTERN PENNSYLVANIA INDUSTRIAL HERITAGE ROUTE

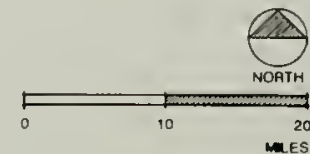
## REGIONAL TRANSPORTATION CORRIDOR

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY

SOUTHWESTERN PENNSYLVANIA HERITAGE PRESERVATION COMMISSION  
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- NATIONAL ROAD
- LINCOLN HIGHWAY
- PENNSYLVANIA TURNPIKE
- PENNSYLVANIA MAIN LINE CANAL
- ++++ ALLEGHENY PORTAGE RAILROAD
- ++++ PENNSYLVANIA RAILROAD MAINLINE
- ++++ BALTIMORE AND OHIO RAILROAD MAINLINE
- WILLIAM PENN HIGHWAY
- NAVIGABLE RIVER SYSTEMS
- PROPOSED SOUTHWESTERN PENNSYLVANIA INDUSTRIAL HERITAGE ROUTE



# REGIONAL TRANSPORTATION CORRIDOR

WESTERN PENNSYLVANIA REGION:  
ITS LANDSCAPE, PEOPLE,  
AND INDUSTRY



## BIBLIOGRAPHY

- Bomgerger, Bruce and Sisson, William  
 1991 *Made in Pennsylvania: An Overview of the Major Historical Industries of the Commonwealth*. Bureau for Historic Preservation, Pennsylvania Historical and Museum Commission. Harrisburg.
- Burkholder, Kenneth C., ed.  
 1989 *Pennsylvania Trail Guide*. Pennsylvania Department of Environmental Resources, Bureau of State Parks.
- Diccio, Carmen Peter  
 1992 *Coal and Coke Context 1750-1945 (draft)*. N.P.: Pennsylvania Historical and Museum Commission. Harrisburg, PA.
- Frens and Frens, Restoration Architects  
 1992 *Physical Assessment and Feasibility Study, Eureka Mine 40 Site, Scalp Level, Pennsylvania*. Prepared for the Johnstown Area Heritage Association. West Chester, PA.
- Historical Society of Western Pennsylvania  
 1991 *Historic Site Survey of the Greater Monongahela River Valley*. Prepared for National Park Service, The Pennsylvania Historical and Museum Commission, and the Steel Industry Heritage Task Force. Pittsburgh, PA.
- Johnson, George B.  
 1984 *Saltsburg and the Pennsylvania Canal*. Historic Saltsburg, Inc. Saltsburg, PA.
- Lane, Frenchman and Associates, Inc.  
 1992 *Plan for the Allegheny Ridge*. Prepared by the Allegheny Ridge Industrial Heritage Corridor Task Force. Boston, MA.
- Marcia L. Gordon,  
 N.D. "Centuries in the Making: Our National Natural Landmarks."  
*Pennsylvania State Parks Magazine*. II:6.
- McVarish, Douglas C. and Meyer, Richard  
 1993 *Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, Pennsylvania*. Prepared by John Milner Associates, Inc. for the National Park Service. West Chester, PA.
- Mueseler, Christine, compiler  
 1993 *Alcoa, New Kensington: The Company, The Community, the Workforce: Cultural Resources Survey. Final Report*. Prepared for America's Industrial Heritage Project, The Folklife Division. Johnstown, PA. National Park Service, U.S. Department of the Interior
- National Park Service, U.S. Department of the Interior  
 1982 *Planning Process Guideline*. NPS-2. Washington, D.C.
- 1987 *History and Prehistory in the National Park System and the National Historic Landmarks Program, 1987*. History Division, Washington, D.C.
- 1988a *Management Policies*. Washington, D.C.
- 1988b *Study of Alternatives: Cambria Iron Works, Johnstown, Pennsylvania*. Denver Service Center, Denver, CO.
- 1989a *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935)*. By Carmen P. DiCiccio. Pennsylvania Historical and Museum Commission, Harrisburg, PA.
- 1989b *Historic Resource Study: Cambria Iron Company*, by Sharon A. Brown. Denver Service Center, Denver, CO.
- 1989c *Trails of the Mid-Atlantic Region: A Cooperative Project of the National Park Service and Virginia Commonwealth University*. Project Director, Keith F. Ready, Ph.D., Washington, D.C.
- 1990a *Blair County and Cambria County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites*. Edited by Gray Fitzsimons with contributions by Denise A. Bradley, Ken Heineman, Richard Henderson, Thomas Lindblom, Margaret M. Mulrooney, Charles Scott, Nancy Shedd, and Peter Stott. Washington, D.C.
- 1990b *Fayette County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites*, edited by Sarah H. Heald. Washington, D.C.

- 1990c *Natural History in the National Park System and on the National Registry of Natural Landmarks*. Natural Resources Report NPS/NR/NRTR-90/03. Washington, D.C.
- 1990d *Railroad City: Four Historic Neighborhoods in Altoona, Pennsylvania*, compiled by Kim E. Wallace; written by Kim E. Wallace, Kathy Edwards, Susan Garfinkel, Alison K. Hoagland, Nancy L. Smith, and Nancy Spiegel.
- 1990e *Site Plan, Interpretive Prospectus, Design Guidelines: Windber/Scalp Level Coal Heritage Project*. America's Industrial Heritage Project for Southwestern Pennsylvania Heritage Preservation Commission. Denver Service Center. Denver, CO.
- 1990f *Study of Alternatives: Mount Etna Iron Furnace Complex*. Denver Service Center. Denver, CO.
- 1991a *Brickyard Towns: A History of Refractories Industry Communities in South-Central Pennsylvania (draft)*. Kim E. Wallace. Historic American Buildings Survey/Historic American Engineering Record. Washington, D.C.
- 1991b *Draft Connellsville Coal and Coke Study*, by Fredric L. Quivik. Prepared by Historic American Buildings Survey/Historic American Engineering Record. Washington, D.C.
- 1991c *Fort Necessity National Battlefield General Management Plan, Development Concept Plan, Interpretive Prospectus*. Denver Service Center, Denver, CO.
- 1991d *Huntingdon County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites*. by Nancy S. Shedd, edited by Sarah H. Heald, with contributions by Gray Fitzsimons, Deane Mellander, and the Friends of East Broad Top. Washington, D.C.
- 1991e *Reconnaissance Survey: Brownsville/Monongahela Valley: Pennsylvania/West Virginia*. Denver.
- 1991f *Recreation Study, Juniata River Corridor, America's Industrial Heritage Project, Pennsylvania*. Denver.
- 1991g *The Salem Project Study of Alternatives*. Denver Service Center. Denver, CO.
- 1991h *Westmoreland County, Pennsylvania: An Inventory of Historical Engineering and Industrial Sites*. Prepared by Historic American Buildings Survey/Historic American Engineering Record. Washington, D.C.
- 1991i *Youghiogheny River Trail Concept Plan*. Prepared by The Youghiogheny River Trail Task Force and The Trails Conservation Assistance Program, National Park Service, Mid-Atlantic Region. Philadelphia, PA.
- 1992a *Altoona Railroaders Memorial Museum Management Plan, Environmental Assessment*. Denver Service Center, Denver, CO.
- 1992b *Coal and Coke Resource Analysis: Western Pennsylvania, Northern West Virginia*. Denver Service Center, Denver, CO.
- 1992c *Comprehensive Management Plan for the Southwestern Pennsylvania Heritage Preservation Commission*. Denver Service Center, Denver, CO.
- 1993a *Bedford/Fulton Counties, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites (Draft)*. Denver Service Center, Denver, CO.
- 1993b *Concept Plan for Southwestern Pennsylvania's Industrial Heritage Tour Route (Draft)*. Denver Service Center, Denver, CO.
- 1993c *Guiding Principles of Sustainable Design*. Denver Service Center, Denver, CO.
- 1993d *Haer Survey of Glass Factories (Draft)*, by Richard O'Connor. Washington, D.C.
- 1993e *Homestead Site Plan Charette: Homestead, Pennsylvania*. Denver Service Center, Denver, CO.
- 1993f *Indiana County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites*. By Richard H. Quinn, Historian, edited by Kenneth D. Rose. Washington, D.C.

- 1993g *New Orleans Jazz: Special Resource Study, Suitability/Feasibility Study and Study of Alternatives, Environmental Assessment.* Denver Service Center. Denver Service Center, Denver, CO.
- 1993h *NPS-28 Cultural Resource Management Guideline, Release No. 4 (Draft).* Washington, D.C.
- 1993i *Shaping Visitor Experiences in Southwestern Pennsylvania. (Draft).* Denver Service Center, Denver, CO.
- 1993j *Somerset County, Pennsylvania: An Inventory of Historic Engineering and Industrial Sites.* By Scott Brown, Francie Robb, and Elaine Will; edited by Patricia Summers, Kenneth Rose, and Gray Fitzsimons. Washington, D.C.
- 1993k *Special Resource Study: The National Road: Maryland, Pennsylvania, West Virginia, Ohio, Indiana, Illinois (Draft).* Denver Service Center, Denver, CO.
- 1993l *Special Study: Seldom Seen Mine. America's Industrial Heritage Project.* Denver Service Center, Denver, CO.
- 1993m *West Overton Village, Pennsylvania: Schematic Design, Interpretive Prospectus, Environmental Assessment.* Denver Service Center, Denver, CO.
- 1993n *Wounded Knee, South Dakota: Draft Study of Alternatives, Environmental Assessment.* Denver Service Center, Denver, CO.
- 1994a *Conemaugh River Greenway Concept Plan.* Prepared by Southwestern Pennsylvania Heritage Preservation Commission in cooperation with U.S. Army Corps of Engineers.
- 1994b *Special History Study: The Evolution of Transportation in Western Pennsylvania (Draft).* By Tom Thomas for the Southwestern Pennsylvania Heritage Preservation Commission. Denver Service Center, Denver, CO.
- Rhodeside & Harwell, Inc.  
1993 *Final Concept Plan: Steel Industry Heritage Project.* Prepared by Rhodeside & Harwell, Incorporated. In cooperation with the Steel Industry Heritage Task Force and the U.S. Department of the Interior, National Park Service, Mid-Atlantic Region, Philadelphia. PA.
- Sharp, Myron and Thomas, William  
1966 *A Guide to the Old Stone Blast Furnaces in Western Pennsylvania.* Prepared for the Historical Society of Western Pennsylvania. Pittsburgh, PA. Temple University, University of Pittsburgh, The Pennsylvania State University.
- 1989 *The Atlas of Pennsylvania.* Edited by David J. Cuff, William J. Young, Edward K. Muller, Wilbur Zelinsky, and Ronald F. Abler. Temple University Press. Philadelphia, PA.
- Pamphlets**
- 1990 "Weirton, The Company," a pamphlet produced by the Weirton Steel Corporation.
- n.d. "People, Technology and Dedication," a pamphlet produced by Allegheny Ludlum Corporation.
- 1993 "Pennsylvania Rails-to-Trails Inventory and Assessment (Draft)," a study prepared by Wilbur Smith Associates Consulting Engineers for the Pennsylvania Department of Environmental Resources.
- Maps**
- 1992 "Western Pennsylvania Rail-Trail Systems Plan," Pennsylvania Chapter – Rails to Trails Conservancy. Prepared by the Allegheny County Planning Department.
- 1990 *Pennsylvania Atlas & Gazetteer.* DeLorme Mapping. Maine.
- 1994 *Regional Trails Plan for the Southwestern Pennsylvania Heritage Preservation Commission.* Prepared by the Denver Service Center, National Park Service.



**National Register Nomination Forms**

Shoaf Historic District  
Saltsburg Historic District  
West Overton Historic District  
Homestead Historic District  
Allegheny-Ludlum Steel Corp., Allegheny County  
Jessop Steel Company

J&L Specialty Products Corp.  
Edgewater Street Company  
Colonial Steel Company  
Molybdenum Corporation/Electric  
Braeburn Steel Company  
Uniontown Downtown Historic District  
Bedford Springs Historic District

## PLANNING TEAM, CONTRIBUTORS, AND PARTICIPANTS

### NATIONAL PARK SERVICE

#### Core Planning Team

Todd Alexander, Team Captain/Landscape Architect, Denver Service Center (DSC)  
Mary Frye, Historian, DSC  
Dave Kreger, Natural Resource Specialist, DSC  
Don Kodak, Interpretive Planner, Harpers Ferry Center (HFC)  
Vicky Stinson, Landscape Architect, DSC  
Tom Thomas, Historian, DSC

#### Other Team Members

Nancy Baker, Landscape Architect, DSC  
Jim Butterfus, Landscape Architect, DSC  
Greg Cody, Historian, DSC  
Margaret DeLaura, Outdoor Recreation Planner, DSC  
Rick Dorrance, Landscape Architect, DSC  
Hugh Duffy, Landscape Architect, DSC  
Allen Gallamore, Natural Resource Specialist, DSC  
Keith Morgan, Interpretive Planner, HFC  
Jeff Reinbold, Community Planner, DSC

### WESTERN PENNSYLVANIA HERITAGE COORDINATION GROUP

Larry Williamson, Chairman (Representing the Pennsylvania Department of Community Affairs)  
Fred Babb, National Park Service, Denver Service Center  
Brenda Barrett, Pennsylvania Historical and Museum Commission  
August Carlino, Steel Industry Heritage Corporation  
Randal Cooley, Southwestern Pennsylvania Heritage Preservation Commission (SWPHPC)  
Joe DiBello, National Park Service, Mid-Atlantic Region  
Ellen Kight, Pennsylvania Department of Community Affairs

### PARTICIPANTS

William Balsley, Connellsville Historical Society  
Richard Burkert, Johnstown Area Heritage Association  
Carmen DiCiccio, Pennsylvania Historical and Museum Commission  
Doris Dyen, Steel Industry Heritage Corporation  
Randy Harris, Steel Industry Heritage Corporation  
Evelyn Hovanec, Fayette County Heritage Committee  
Karl King, Southwestern Pennsylvania Heritage Preservation Commission  
Richard O'Connor, Historic American Buildings Survey/Historic American Engineering Records (HABS/HAER)  
Joel Sabadascz, HABS/HAER  
Bill Sisson, Pennsylvania Historical and Museum Commission  
Michael Workman, West Virginia University, Institute for the History of Technology and Industrial Archaeology

## **CONSULTANTS**

Sharon Brown, Interpretive Planner, HFC  
Linda Moery, Studio Leader, DSC

## **PUBLICATION SERVICES**

Ruth Eitel, Visual Information Specialist, Denver Service Center  
Glenda Heronema, Visual Information/Simulation Specialist, Denver Service Center  
Joan Huff, Visual Information Technician, Denver Service Center  
Sandy Schuster, Editor, Denver Service Center  
Philip Thys, Visual Information/Simulation Specialist, Denver Service Center







United States Department  
of the Interior  
Southwestern Pennsylvania  
Heritage Preservation  
Commission  
National Park Service